Phi Delta KAPPAN

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For the promotion and improvement of free public education through a continuing interpretation of the ideals of research, service, and leadership

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WHEN you get right down to it, a Sumner Slichter's economic predictions are not much better than those of the old lady who studies tea leaves. We note that, with all their advantages of brains and information, the professionally-managed investment funds don't significantly outperform the Standard and Poor 500 which establish the stock average.

Many "qualified" economists are predicting that, unless drastic steps are taken at once, the present hair-curling recession will deepen into a 1930-style depression. Perhaps as many say this as support President Eisenhower's more optimistic forecast. We grant that Eisenhower has some advantage. He actually has his hand on the economic pin-ball machine. He can gunch (tilt) for better results. We sincerely hope he will use more than body English.

If we do have a long-term depression which affects retail prices—they seem remarkably resistant to date—what will be its significance for teachers?

We often hear it said that the teacher, if he has tenure, is sitting pretty during a depression. His salary may not increase, in fact may go down. But his cost of living is likely to descend much faster.

We submit that this is only a part of the picture, besides being an abominably selfish and callous attitude to take toward a national disaster. Paraphrasing Ross Robertson, who says that "bad business is bad for business," we suggest that "bad business is bad for everybody." We can trace some twisted personalities—maybe even our own—right back to the last depression.

For the benefit of the younger Phi Delta Kappans (the average age is about 40), let's recall some of the events of the early Thirties. The following is quoted from a 1935 report compiled by William G. Carr, then NEA research director:

"During the early years of the depression the marked decline in cost of living, in spite of the first decrease in teachers' salaries, increased the purchasing power of their income about 22 per cent above that of 1928-29. Further reductions in salary, however, reduced this purchasing power to only 9 per cent above that of 1928-29. Moreover, it is estimated that if living costs continue to rise the early gains made during the first years of the depression may soon be entirely lost."

By 1935 teachers' salaries had fallen about 12 per cent from 1929, when the average was nearly $1,500. During the same term other public employees' salaries fell 3-7 per cent and those of other professional groups and privately employed people fell from 21 to 62 per cent.

But in 1935 some 10 to 15 per cent of the certified teachers in the country were without positions in the schools. In New York alone there were 5,000 unemployed teachers. And the shriveling spirit of educational "retrenchment" was abroad, leaving marks that even yet have not been entirely erased. Note, for example, the platform for education presented in 1932 by the U. S. Chamber of Commerce.* Among twenty fields for retrenchment advocated by the Chamber:

1. Postpone new capital outlay.
2. Transfer supervisors to the classroom.
3. Simplify the curriculum and reduce overhead [eliminating unnecessary administrators].
4. Shorten the school day by one hour.
5. Increase the size of classes and lengthen teaching hours.
6. Suspend automatic increases in salary.
7. Reduce teachers' salaries, not to exceed 10 per cent.
8. Shorten the school year, not to exceed 12 per cent.
9. Eliminate kindergartens.
10. Reduce the elementary school curriculum by consolidating from eight to seven years.
11. Reduce the high-school curriculum by consolidating from four to three years.
12. Transfer one-third of the cost of all instruction above high school from the taxpayer to the pupil.
13. Impose a fee on high-school students.

These proposals are quoted not because they discredit the U. S. Chamber of Commerce, which was simply reflecting a predominant attitude of the day, but to sober the complacent teacher who says, in effect: "Relax, brother, the depression can't hurt us."

A depression hurts everyone, financially and spiritually. At this writing, depression appears to be our Number One national problem; hence it is of top-priority concern to educators.—S.M.E.

* As quoted from William W. Wattenberg's *On the Educational Front*. New York: Columbia University Press, 1936.

By BURTON W. GORMAN

What Can We Learn from THE SWISS SCHOOLS?

Intensive, extensive teacher preparation, almost universal attention to music and art, a thorough-going democracy characterize education in Switzerland.

THE Swiss nation encompasses only half as many people and only one-third the land area of the state of Ohio. It is a nation with almost no natural resources other than its land and its water power. Yet here is a people whose craftsmanship and intellectual leadership are world renowned. The Swiss enjoy the greatest prosperity and the most durable peace in Europe.

Is it possible that a superior program of education has contributed markedly to the capacity of the Swiss people to maintain an outlook which is liberal, peaceful, resourceful, and prosperous?

The schools of Switzerland, like those of the United States, have been nurtured in an atmosphere of freedom and democratic control. Like the people of the United States, the Swiss are committed to local or cantonal control of education, their twenty-two cantons enjoying a degree of political independence at least equal to that of our states.

Since cantonal independence characterizes Swiss education, this analysis is based upon practices in the canton of Zurich, home of one-tenth of the five million Swiss people. It can be safely assumed that the Zurich pattern is somewhat representative of the entire federation, just as the schools of New York State are similar to those of the remainder of our nation. No attempt will be made here to describe the minutiae of school organization in Switzerland. Such concerns too often blind us to major issues, broad purposes, and significant distinctions. It can be taken for granted that Swiss schools are modern with respect to program and physical equipment. For example, the schools have dental care, special education for the handicapped, modern ideas in school architecture and equipment, a wide range of audio-visual aids.

The focus here is upon the pervasive and distinctive features of Swiss education: (1) teacher training, (2) music and art, (3) democracy of organization and practice, and (4) basic philosophy.

Teacher Training

Some of the most distinctive features of education in Zurich relate to aspects of the teacher-preparatory program, among which are the following:

1. Teacher preparation starts much earlier than in the United States, pupils entering the preparatory institution or *Unterseminar* for primary teachers at Kusnacht at the start of the tenth grade.

2. Secondary school teachers go through the same preliminary preparation as elementary teachers, which the Swiss justify in two ways: (a) The teacher is required to wrestle with the problems of learning where they are most real, where he must work at adapting himself to the learner's possibilities and needs. (b) A teacher at the secondary school level benefits by knowing what has gone before.

3. Preparation is much more intensive than that to which America's future teachers are exposed. Students at Kusnacht attend classes thirty-seven hours per week. Regular classes are held each Saturday until 1:00 P.M. All students are expected to attend the summer session. Vacation is limited to only a few weeks.

4. The teacher begins to work with pupils, that is, to engage in a type of student teaching, as soon as he begins to study professional education in the fourth year of the teacher's high school *(Unterseminar)*.

MR. GORMAN *(Gamma Tau 30) is head of the department of secondary education, Kent State University, Kent, O. He recently visited Swiss schools in company with other members of the Comparative Education Society. This manuscript has been critically reviewed by Dr. Walter Zulliger, director of the* Unterseminar *at Kusnacht.*

5. Laboratory or total living experiences early become a part of the teacher-preparatory program. For example, Kusnacht trainees take a one-week skiing trip during their first year, teachers going along and taking part in the activities; the second year they take a longer camping trip; the third year they engage, under the direction of the teacher, in a week of work with children. Thus, says Dr. Walter Zulliger, Kusnacht director, "We get away from isolated fragments of subject matter and see life in relation to community affairs."

6. Generally speaking, the Zurich teacher is more broadly trained than the American teacher. For example, teachers in the gymnasium (an academic secondary school) must qualify for the doctorate through study at the university. They follow one of two tracks: history and languages, or mathematics and science. A further example of the breadth of training is seen in the requirement that music and art be studied in all four years of the *Unterseminar*. The selection and pursuit of a major instrument, such as violin or piano, is required as a feature of the musical training. Art must be continued in the fifth year *(Oberseminar),* although music at this level is optional. These backgrounds, as will be shown later, are very much in evidence in the classrooms of graduates. The foreign language requirement, as in most European countries, starts earlier and lasts longer than is the case in any part of the United States. Teachers receive instruction in industrial arts or crafts two hours per week, fitting them to develop features of project learning.

7. That this background of preparation is recognized in teacher salaries is evidenced by the fact that average annual teacher earnings in Switzerland are three and three-tenths times the average per capita income. A comparable figure in the United States is only one and nine-tenths.[1]

Music and Art

Music and art are employed in the schools of Zurich to a degree not found anywhere in American education. The preparation mentioned above bears fruit. Singing is fused with all types of learning. It may start a lesson in history or close one in mathematics. There are no special teachers of music or art. Every teacher knows and uses these subjects.

Art is evident in the total room environment, adding to the cheerfulness and livability of the school room. Student work is generously displayed at all levels. It is evident in pupil notebooks, where the writing is neat and legible, the margins regular and well-defined, and the themes illustrated by pupil drawings. Nowhere is there the commercially-produced workbook common in American schools. The teacher is artistic and precise in placing the simplest illustration or diagram upon the chalkboard. It is here that his artistic development shows itself best, for a portion of his art course has been devoted to drawing upon the blackboard, and he uses colored chalk generously and interestingly. For example, the writer saw in a third grade classroom a most intriguing colored chalk story of the evolution of the frog from the wiggly and unhandsome tadpole to the speckled adult *frosch.* A geometry teacher used three colors of accurately placed lines and X marks in demonstrating two different applications of a proposition under discussion.

Zurich schools appear to cultivate the analytical use of rather large pictures mounted on linen-backed material. These are stock items of classroom paraphernalia, possessed in considerable quantity. Such a picture was being used by one class as a stimulus to composition, by another teacher as an adjunct to the study of history.

Nowhere is there any evidence that music and art are used as a substitute for serious attention to reading, writing, arithmetic, and spelling. Rather, they appear to be used to motivate development and to enhance attention given the fundamental curriculum. The Swiss celebration of unerring exactness, the national capacity for mathematical accuracy as evidenced in watch and clock manufacture, are evidence that this is true.

Democracy in Education

In Swiss schools, democracy of organization and practice reaches heights unknown in schools of the United States. Furthermore, it seems to be matched by the personal and academic freedom accorded teachers.

There are no inspectors or superintendents in the schools of Zurich in the sense that these offices exist in American schools. So far as such supervisory positions are needed, the jobs are passed around. Likewise, there are no principals or headmasters in the various school buildings. Teachers take turns being head teacher.

Probably because teachers at the secondary level have undergone the training of primary teachers as a preliminary to further preparation, the jealousy and fault-finding so often characteristic of the relationship between elementary and

[1] United Nations Statistical Data. See Eugene L. Hammer, "Salaries of Teachers," *The Year Book of Education,* 1953. Yonkers on Hudson, New York: World Book Company, 1953, p. 106.

secondary teachers in the United States is missing. A remarkable mutual respect appears to exist at the various educational levels.

Perhaps most distinctive of the democratic features of Swiss education is the method by which a teacher comes to a particular position. Having passed the training hurdles and having served an apprenticeship of at least fourteen weeks as a substitute, a teacher is admitted to the election list, for Zurich teachers are elected by the adult males of the community to serve a term of six years, at which time they must stand for re-election.

Although teachers are expected to be active in the political, social, and cultural life of the community, political beliefs or activities seldom jeopardize re-election. For example, one small community about forty miles from Zurich has as one of its teachers a very active leader in the liberal party and, although it always votes conservative on other matters, the community has repeatedly returned this liberal-minded teacher to his post. Many teachers serve as members of the legislative body of the Swiss Federation and as members of the cantonal councils. It is said that Zurich has risen to its present position of leadership and prosperity on the wings of liberalism and that many teachers have been leaders in the liberal movement.

Strangely, this liberalism has in some ways never reached Swiss women. They do not yet have the franchise and an effort has been made to limit the number of female teachers, especially prior to 1941. Consequently, teacher ranks at all levels are still dominated by men.

Freedom of speech reaches a new high among the professors of Swiss universities; it is guaranteed by the constitution. No political or social source is able to interfere with freedom in teaching and research. This is an outward expression of an inner feeling that the university represents the scientific conscience of Swiss society. This extraordinary freedom, however, is not construed to mean freedom from responsibility. All Swiss educational institutions are geared to a consciousness of their obligation to better the society which nurtures them, and the Swiss brand of loyalty would not have it any other way.

Ideological Bases of Education

In the United States we often forget that we have a relatively small body of ideological background upon which our education is based. Benjamin Franklin in 1749 and Thomas Jefferson a half century later made some carefully outlined proposals for education, but they have not been highly enough regarded to make them a matter of thorough study in our teacher-preparatory institutions. Horace Mann, during the middle part of the nineteenth century, became a great public school promoter and organizer, but he left behind very little basic educational theory. Likewise, Henry Barnard was a great collector of ideas about education, but he did not become noted as a creative theorist and his journal has not been extensively studied by American teachers. In fact, it is probably fair to say that we had no front-ranking educational theorist before John Dewey. Even his work has been studied too often in second-hand form and his ideas have met with something less than general acceptance.

In contrast to our more or less aimless wandering in the realm of educational ideas and ideals, there seems to exist in Switzerland a considerable body of educational theory that is generally accepted and widely diffused. Johann Heinrich Pestalozzi, one of the most widely recognized educational theorists of all time, is a national hero with the Swiss people. He was born in Zurich in 1746 and wrote his first book in 1780. In 1801 he wrote *How Gertrude Teaches Her Children,* a result of his experiences as the teacher and benefactor of children orphaned by the French invasion of 1798. It is a complete exposition of his theory of education, of child development, of the processes of learning. This theory, generally regarded as that of a very forward-looking man, has dominated Swiss education for five generations. As mentioned before, all prospective Swiss teachers are routed over the same initial track. On that track is a section devoted to the history of education from earliest times; other sections give attention to the principles of human growth and development and to the principles of learning, to concepts of freedom in the writings of Pestalozzi, and to family life as seen by Pestalozzi. Not only are his writings intensively studied by teacher trainees, they are widely read by parents as a guide to the rearing of children. Thus is promoted a unanimity of educational outlook found in few, if any, other nations.

Strong stress is placed upon methodology in all the branches that the prospective teacher is going to have to teach. For example, during the final or fifth year of the primary teacher's preparation, fifteen hours per week in the summer term and eight hours per week in the winter are devoted to methods to be used in teaching handwriting, arithmetic, languages, arts, natural sciences, and the other branches of the primary learning program.

Conclusion

Education, it appears, has played an important part in making the Swiss people prosperous, peaceful, happy, and progressive. Swiss teachers apparently enjoy greater respect, relatively better pay, and more freedom than is the case in most other parts of the world. If these are valid assumptions, it would seem that any people seeking similar goals should give thought to setting up certain conditions that characterize Swiss education. Among these are: (1) Intensive, extensive teacher preparation, utilizing a substantial body of cohesive educational theory which is widely understood and commonly practiced. (2) More nearly universal attention to music and art to encourage creativity, productivity, and emotional equanimity. (3) Thorough-going democracy and freedom in the entire educational enterprise and particularly in the teacher's work.

American teachers are just now reaching a respectable level of professional training and they are just now experiencing some success in gaining a degree of professional autonomy. Switzerland is one of the places where such autonomy is much greater. It is also one of the places where standards of professional preparation are more selective, more rigorous, and more extensive. If the teaching profession in the United States would effectively promote its own further progress, it must exert power in every legitimate way toward the realization of these higher standards. Among other things, then, it is urgent that education associations and agencies help administrators and school boards find ways to meet the need for teaching personnel without enlisting as teachers persons who are unfit and unprepared for the job.

The Authorities Speak on Science Education

Denver, Colo.—Science education is not any better or worse than the science teachers we now have and we must start building at that point, Margaret Mead told participants in the national convention of the National Science Teachers Association in late March. It was the largest NSTA convention ever held, attracting 1,500 teachers.

"We've got money, people, and brains enough to educate every individual to his capacity," the noted anthropologist said. "We should now pour money into every part of the educational system that is behind."

She added that education of the gifted is "the most important general area in which we are behind."

NSTA President Glenn O. Blough said in the convention's opening session that "no need is greater or more critical than the need for well-qualified, devoted, and enthusiastic teachers of science."

Dr. Blough, an associate professor of education at the University of Maryland, cited grade school science teaching as one of the areas most urgently needing improvement. He called for a carefully planned course of science in the elementary schools, just as there is now for reading and writing. "If there is no definite time for science, there probably won't be any science," he noted.

In an interview, Robert H. Carleton, executive secretary of NSTA, said that every student should have a regular course of science from kindergarten through the tenth grade.

Noting that about 25 to 35 per cent of high-school juniors and seniors take chemistry and physics, Mr. Carleton said that "another type of physical science course is needed for students who can't handle or don't want the courses we now have in this area."

Science in the schools must be more down-to-earth and related to everyday living, according to Paul DeH. Hurd, associate professor of education at Stanford University. He called for teaching that includes "flowers that smell, frogs that jump, fish that can swim." He added, "Learning is wholly accurate only insofar as the student has opportunities for a true experience with the phenomena or materials under study. Models, mock-ups, pictures, and charts are only second best to the real thing."

"To meet every student's needs, we must prescribe on a physician's basis. We can't swab all throats with the same type of iodine," commented Robert MacCurdy, a professor at the University of Florida.

"J. Ned Bryan, director of the NEA project on talented students, said that "wherever possible academically bright students should be grouped in classes with students of similar abilities."

"Science education is going to have to undergo some major changes in the coming years. It will continue to produce scientists, but "It must also interpret science to the citizens who are not scientists," according to Howard E. Wilson, dean of the College of Education, UCLA. "The study of science must bring into itself more points of social significance, and by the same token, no man can be liberally educated today without some knowledge of science and its impact on society."

DON'T FORGET BIOLOGY!

By **WILLIAM G. LAND**

When the douzepers of Science swing their claymores, they aim to chop up antiquated physics and math courses. Mr. Land suggests that high-school biology merits similar attention.

AMID the crash programs for more and better science and mathematics teaching, physics is getting the most attention among the sciences and chemistry is running a poor second. Biology is rarely mentioned in Congressional hearings, in the public press, or in school administrators' meetings. When it is, the subject is likely to be tied to the tail of the medical kite. This is to be expected, for over the years the teaching of biology has become infused with the teaching of health. News editors, intent on human interest stories, have abetted the medical slant in reporting biological research. Even agricultural research, which receives a sizeable share of taxpayer support, gets little public attention outside its own sphere. The result is that popular knowledge and support of the biological sciences take third place.

Even though enrollments in high-school biology courses have increased in relation to those in physics and chemistry, certain evidence suggests that the increase is not because of pupil interest in biology as a subject but as a way of avoiding anything more demanding. Some of the increased enrollment is in modified biology courses intended especially for lower group pupils who will not enter college. Yet the descriptive expanse of ninth grade general science and the possibilities of introducing fundamental physical principles and descriptions of chemical properties in teaching tenth grade general biology are keys to popular scientific appreciation as well as to individual initiative.

As a by-product of a survey of the status and future of physiology as a basic aspect of biological science, made by the American Physiological Society, some biologists have become alarmed by the low scientific content of high-school biology as well as by the educational conditions which affect its teaching. They are concerned about the recruitment of future biological scientists and about the understanding which future citizens may have of the nature and object of their work. The sections of the report of this survey of physiological science which deal with the motivation and recruitment of scientists and with public communication and education are important to the educational profession, even though some judgments may not be palatable. Here are some extracts:

> The tendency to learn about rather than to learn science has spread from elementary to high school to junior college and general education schools, and is reaching into liberal arts colleges. The ominous warnings of our falling behind Russia in science and technology take on body when our situation is examined. Our education is more a social custom than an intellectual quest. Our teachers are too largely recruited from shoddy material and given shoddy training; are given shoddy facilities with which to teach shoddy content; and are asked to teach shoddy students to shoddy standards. . . . Democracy and science are both

MR. LAND *(Alpha Rho 253) has been in close contact with the Survey of Physiological Science, initially as consultant on education and later in consolidating survey data and drafting the body of its final report. The report is now available as a book:* Gerard, Ralph W., Mirror to Physiology. *Washington, D.C.; American Physiological Society (9650 Wisconsin Ave. 14), April, 1958. $5.00.*

endangered: scientists must join other groups actively at work to better the situation.[1]

> This survey has re-enforced the evidence that our youth receives inadequate education in science and that biology as widely taught is a travesty on the subject. Dynamic and living biology can and should be important in elementary school and up. This will require teachers who have themselves developed some guided curiosity and have at least enough subject area knowledge to guide their pupils to valid sources of knowledge—nature, laboratories, libraries, other teachers. Such teachers will not result from routine training. . . . Textbooks used, teachers encouraged, instructions given, depend on the over-all orientation of the school and school system; and so, ultimately, on public attitudes.[2]

> Various steps are now being taken to expand the learning experiences of high-school science teachers—for example, by attendance at summer institutes supported by the National Science Foundation—and to encourage pupils showing scientific inclinations. "Under the conditions of mass education, school counselors and science teachers need strong contacts with and support from the scientific community, as in Junior Academies of Science. . . . Personal contacts of scientists with promising youth and with their science and mathematics teachers have even more potential."[3]

Another step would be for experimental scientists, school science teachers, and state, county, and city school officers to meet together to formulate mutually acceptable standards and curricula with respect to the content and methods of ninth grade general science and tenth grade general biology, together with related content areas in health, physical education, nutrition, and other high-school subjects. There is considerable duplication of content in such courses and wide differences in subject emphasis, teacher training and competency, and teaching methods. It will not be an easy job to eliminate unnecessary overlapping, to upgrade scientific content, and to train or retrain teachers to cope with the fundamentals implicit in a dynamic biology. Such meetings require an enormous amount of background preparation to be successful, but they can be initiated by progressive school administrators willing to devote the necessary staff time in communities which will put up the necessary money. The effort will be amply rewarding if the teaching of general biology which is given to a million high-school pupils annually can be made a firm foundation for future scientific incentive, understanding, and popular support.

The entire biology and health program requires re-examination. A dynamic biology is a functional biology, using that term in its scientific rather than in its pragmatic sense. It implies an emphasis on the functioning of physical and chemical phenomena in all living matter—bacterial, plant, and animal. Without neglecting the structural, developmental, or taxonomic aspects of biological science, we may heed Physiologist Claude Bernard's classic formulation of a century ago:

> Admitting that vital phenomena rest upon physico-chemical activities . . . the essence of the problem is not thereby cleared up, for it is no chance encounter of physico-chemical phenomena which constructs each being . . . and produces the admirable subordination and harmonious concert of organic activity. There is an arrangement in the living being, a kind of regulated activity, which must never be neglected, because it is, in truth, the most striking characteristic of living things.[4]

Such a concept will not be easily accepted by those who have been taught less fundamentally, nor will dynamic biology replace generalized biology overnight. It took thirty-five years, from about 1881 to 1915, for biology itself to become nationally established as a secondary school subject, combining what had earlier been taught as botany, natural history or zoology, physiology, and anatomy. After World War I, popular demand led to legislation requiring school courses in health and physical education. The dangers of nutritional deficiency, among other concerns for the public welfare arising in the Great Depression, started not only school lunch programs but reinforced the curricular emphasis on health. In response to these pressures, biology textbooks began to be loaded with health information and misinformation. At the same time, the widening acceptance of the concept that course content should stress things relating to everyday experience influenced the teaching of science. Thus what remained of scientific biology began to be overlaid with its socio-economic applications. In 1942 the National Committee on Science Teaching of the NEA espoused functional teacher training curricula to meet these educational goals. To cap the scientific dilution, in 1948 the U. S. Office of Education issued *The Major Principles of the Biological Sciences of Importance for General Education* (Circular 308), presenting the results of a doctoral dissertation which listed and ranked 300 so-called "principles" evolved from existing textbooks and educational research studies. If today the objectives of the content of secondary school science teaching—especially in biology and the biological aspects of health and physical education and home economics—are found wanting, the history of education indicates

[1] Gerard, Ralph W., *Mirror to Physiology*, p. 225.
[2] *Ibid.*, pp. 240, 241.
[3] *Ibid.*, pp. 191-192.
[4] *Ibid.*, p. 30.

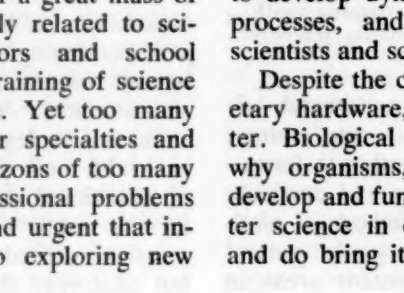
that we are nearing a turn of the tide.

It is significant that professional scientists are becoming actively interested in the teaching of science in the schools, and that popular pressures are demanding not only more science but better science. As a reaction to post-sputnik alarms, school administrators are easily tempted to listen to speeches by big-wheel scientists and then go home to pour oil on their troubled constituents. This is avoiding the main problem: how to establish and maintain communication between scientists at the working level and school administrators and science teachers also at the working level.

There are four groups of people who have a direct stake in science education: research scientists concerned with the quality of graduate students and their basic preparation; college science professors engaged partly in research and partly in teaching and encouraging undergraduates; high-school science and health teachers dealing with the latent talents of a great mass of pupils in ways often not directly related to science; and education professors and school administrators involved in the training of science teachers and their effectiveness. Yet too many scientists are immersed in their specialties and in their laboratories; and the horizons of too many educators are limited by professional problems and pressures. It is important and urgent that individuals who are receptive to exploring new points of view and understanding each others' problems be identified within each of these groups. If school science teaching is to be strengthened, such people must be brought together to work together. In this the local chapters of professional societies in science and in education can take the lead, especially in setting up routes of communication and cross-fertilization of ideas on a city, county, or area basis.

Such communication is valuable to all science teaching: for biology, which has admittedly suffered from lack of both scientific and industrial support, it is particularly important. It is valuable also to scientific and technical recruitment. There are fully as many professional, technical, and commercial careers in the biological as there are in the physical sciences. The future development of both the biological sciences and the industries dependent upon them requires a broad and basic understanding of all life processes. It is time to give biology in our schools a new look, to develop dynamic emphases on principles and processes, and to bring together experimental scientists and science teachers in a common cause.

Despite the clamor over missiles and interplanetary hardware, it is the minds of men that matter. Biological science seeks to learn how and why organisms, from the lowest to the highest, develop and function. In aiming for more and better science in our schools, don't forget biology and do bring its teachers and scientists together.



BOOKS

for leaders

Timely, Practical, Definitive—

This Is NSSE's Guide for Dealing with the Gifted

EDUCATION FOR THE GIFTED. The Fifty-Seventh Yearbook of the National Society for the Study of Education, Part II. Edited by Nelson B. Henry. Chicago: University of Chicago Press, 1958. 420 pp. $4.00. Reviewed by Earl G. Herminghaus (Beta Iota 199), *research consultant,* St. Louis Public Schools.

MOST certainly the NSSE is to be congratulated for choosing education of the gifted as the subject for one of its yearbooks at this particular time. Recent circumstances which have built up pressures all over the nation make it imperative for school administrators and teachers to be well informed about the nature and needs of the child of superior ability. And they should know what constitutes an adequate educational program for him. This yearbook will go a long way toward filling the need for good information. It is well-organized, definitive, and thorough. It establishes a sound rationale, it is objective in its presentation of controversial issues, and it is practical, particularly in the last two chapters, as it deals with the problems of establishing a program for education of the gifted.

The yearbook does four things: (1) it describes and analyzes the 1957-58 phase of the problem of educating gifted children; (2) it presents the causes of the present surge of interest in this area; (3) it gives a broad definition of the term "gifted child" and describes procedures for identifying and assisting such children; and (4) it presents and discusses a general set of recommendations for a gifted child program.

In an introductory chapter entitled, "The Importance of Education for the Gifted," Robert Havighurst, chairman of the yearbook committee; John Hersey, author; Morris Meister, principal of the Bronx High School of Science; William Cornog, superintendent, Winnetka, Illinois; and Professor Lewis M. Terman discuss the problem, each from a different frame of reference. The article by Terman, written shortly before his death, is said to be his last published writing.

Ruth Strang and Paul Witty have chapters emphasizing a broad definition of the term "gifted." Robert DeHaan and Robert Wilson outline a systematic plan for the identification of gifted children. A. Harry Passow discusses a program of enriched education for the gifted. Miriam Goldberg, John Rothney, and Norbert Koopman suggest procedures for recognizing and, in some cases, increasing the educational motivation of the gifted. Jack Kough and Robert Havighurst deal with the use of community resources and ways of securing community support and understanding. Clifford Williams deals with evaluation of the program. Three long chapters report and evaluate programs of enrichment and acceleration for the gifted: Dorothy Norris for the elementary school, Lloyd Michael for the secondary school, and Malcolm McLean and Robert Carlson for higher education. There is a special chapter on creativity by Robert Wilson and another on social leadership by Robert DeHaan. There is also a well-documented chapter by Abraham Tannenbaum on the history of interest in the gifted.

A Need in Teacher Preparation

In a chapter on the preparation of teachers for the education of gifted children, Frank Wilson points out that most of the explicit attention paid to teacher education in the area is of the in-service variety and that there is a great need for well-organized workshops and graduate level courses. In the final chapter, "Organizing and Administrating a Program for the Gifted," Clifford Wilson describes the procedures used to organize several existing programs and analyzes their costs. He concludes that the costs are only slightly above the cost for average pupils and far below the cost for handicapped children.

Although interest in the education of the superior individual has never in the history of civilization approximated the intensity which exists now and which will increase in the years immediately ahead, it is true, as Tannenbaum points out in Chapter Two, that the past has always been interested in the exceptionally talented person. But, because of limited knowledge about the nature and behavior of man, this interest usually took the form of curiosity, of awe, of suspicion. In the past, the waste of human talent was often deplored sentimentally, but little if anything was

done about it. For example, Oliver Goldsmith, in "The Deserted Village," inspected the tombstones in the little village cemetery and speculated on the fate of "some mute, inglorious Milton." But even he was not too sure about the social value of developing talent to its full potential, for a little farther along he wonders if here might lie "some Cromwell guiltless of his country's blood."

Alexander Pope, earlier in the eighteenth century, expressed a widely held attitude toward giftedness which has hampered progress for centuries. He said,

> Great wit is close to madness near allied.
> And thin partitions do their bounds divide.

In spite of the findings of Terman and others, this attitude is still prevalent enough to cause concern to administrators dealing with the public and with parents of gifted children.

What Should We Prepare Them For?

An interesting parallel to Goldsmith's implied question about the value of special education for the gifted is found in Terman's essay titled "What Education for the Gifted Should Accomplish." He answers the question, "How important is it that all of the highly gifted should be educated to the limit of their abilities?", by saying that a universally valid answer to the question is impossible because no single criterion of life's values can be agreed upon. He points out that earning power is not a criterion which all would accept. The man with the highest income in Terman's original group of gifted now earns over $300,000 a year. He did not go to college but entered on his business career immediately after graduation from high school at the age of fifteen. Others in the group with only one or two years of college earn three to five times as much as the best-paid college professors. Terman goes on to say, "There are still others in the group who are so lacking in ambition that they deliberately chose not to enter the usual American rat-race for what is usually regarded as success. Nor can I find it in my heart to condemn those who make this choice; it may well be that their fewer honors and lower incomes are fully compensated by greater contentment and a lower incidence of anxiety and ulcers. After all, the trilogy of inalienable rights specified in our Declaration of Independence included the pursuit of happiness as well as life and liberty."

Terman concludes that perhaps preparation for the greatest possible service to society would be a valid criterion of what education for the gifted should accomplish. However, he points out that what passes as a service to society varies with the *Zeitgeist,* the ever-changing spirit of the times. What is valued as a service in one era could be a disservice in another, and vice versa. Sixteenth century Europe needed many Galileos, but the one it had was condemned as a heretic. Thoreau was little appreciated in his day, but it is said that his influence has changed the map of Asia (through his influence on Gandhi).

The current *Zeitgeist,* under the influence of the cold war, is pointing up the need for many more scientists and engineers. But what of the *Zeitgeist* of tomorrow? Terman proposes that the education of the gifted should provide not only for the felt needs of a given time, but also should prepare the way for the future appreciation of needs not yet recognized. He says, "By encouraging the development of all kinds of special talent and/or aptitude for every kind of leadership and scholarly achievement, the *Zeitgeist* itself will, in time, be molded along more liberal lines and to the preparation of whatever enlarges the spirit of man."

One of the problems which have concerned administrators who have tried to initiate special programs for students of superior ability is that caused by various connotations of the word "gifted," and they have tried to find substitutes for it. But DeHaan and Havighurst, in their book, suggest a frank admission of the fact that this superior ability is, indeed, an endowment. As such, it entails certain responsibilities on the part of the recipient. They say, "Another responsibility of the gifted person is to be modest and humble—to be the servant of his society. He should feel that his special talents are really *gifts* to him, of which he should make the most for the good of both society and himself."

Giftedness as 'a Becoming'

Ruth Strang, in her article on the nature of giftedness, modifies this idea somewhat when she suggests that the concept of giftedness is becoming more dynamic. She says, "The word 'gifted' is a misnomer if it implies some innate capacity or 'gift' bestowed on the child at birth, once and for all. We now look at giftedness as a process of becoming." She goes on to discuss in a good deal of detail various aspects of the development of giftedness, including non-intellectual "determinants of achievement," such as persistence, perseverance, drive, purpose, and interpersonal relations.

It is rather consistently emphasized throughout

the yearbook by Witty and others that the intelligence quotient helps us to identify children potentially gifted in abstract intelligence. But there are other forms of giftedness and other factors to be considered in the identification of the gifted. DeHaan and Wilson in Chapter IX give an analysis of the problem of identification, with a very useful, practical description of various methods of identification. This chapter will be very valuable to anyone who is setting up a program for the first time. It might well cause others to re-examine their screening and identifying procedures.

Section III of the yearbook, entitled "Education of the Gifted," is the largest section, and the one which describes in detail various methods of organizing the educational experiences of gifted children. This is an area where there is still a good deal of controversy among educators. The proponents of separate schools, of separate grouping in regular schools, of modified grouping, and of enrichment in the regular classroom by no means see eye to eye on many of the problems and issues.

No Single 'Best' School Organization

The yearbook itself is objective in its attempt to present fairly all types of organization, although the personal bias of individual writers is at times easily apparent. Williams probably presents the viewpoint of the editors pretty well when he says that there is no one administrative organization that is best for all gifted students, and that the method used must necessarily be determined by a number of factors. He says, "The appropriate method is the one which, under the circumstances, is most likely to benefit the capable students in the particular school under consideration."

There are certain frequently expressed attitudes about organization, however, which deserve a word or two of comment. It was suggested by several people that we need to take a new look at acceleration, in a frame of reference that includes some sound experimental evidence.

There seems to be rather strong support of special grouping as a form of organization; in fact, there are signs of a trend in this direction, in spite of those who still believe that it is undemocratic and socially limiting. The definite stand taken by the Educational Policies Commission of the NEA in 1956 in favor of special grouping has undoubtedly influenced the thinking of many administrators. The simple fact is that, no matter how desirable "enrichment in the regular classroom" may be, in many situations that involve crowded classrooms and burdened teachers it is simply impossible. Terman himself, after commenting that enrichment of curriculum for the gifted with little or no acceleration and without classification by ability is the method most generally used, concludes by saying, "Effective enrichment of curriculum is almost impossible in these days of very crowded classrooms."

Williams, in his step by step analysis of the process of organizing a program, makes two points which are so obvious that they might easily be forgotten. First, a superintendent considering a proposed program for the gifted should ask himself, "Is the concern for the education of the gifted the result of deficiencies in the local instructional program?" If there is evidence that the school does not educate gifted students as well as it should, there is sufficient reason for such a program. But to base such a program solely on the widely publicized trained-manpower shortages is to overlook the broader purposes of American education. Second, no program should be undertaken without considerable investigation and discussion.

In the final analysis, as Passow has indicated, what the gifted child brings to the situation is a most important determinant of his achievement. Yet the situation which we provide is probably at least as important. Terman writes, "No method or any combination of methods for the gifted will succeed that does not awaken their intellectual ambition." That is our real challenge.

Homo Americanus: One for Whom the Walls Are Broken

AMERICA AS A CIVILIZATION, by Max Lerner. New York: Simon and Schuster, 1957. 1,036 pp. $10. Reviewed by Richard I. Miller (Beta 4476), *NEA representative and observer at the United Nations.*

MONTESQUIEU once asked the question: How does this all hang together? Max Lerner asked himself the question, then spent more than a decade writing a 1,036 page answer.

America as a Civilization (Life and Thought in the United States Today) attempts to do about the same thing Harold Laski did in his 1948 work, *The American Democracy,* a mere 783 pages. Some fundamental differences separate the two works, however. Laski wrote a Marxist analysis of American life, while Lerner speaks the language of the social sciences. Laski was pessimistic: "The spirit of America in the nineteen-forties . . . [with] a growth of anti-Semitism and of bitter hostility to the Negro advance" must cause an "honest observer . . . some hesitation

about its outcome." Lerner, on the other hand, is optimistic: "There is still in the American potential the plastic strength that has shaped a great civilization. . . . We think our civilization is near its meridian, but we are yet only at the cock-crowing and the morning star."

But why should busy educators wade through 430,000 words about America? Don't we know the land of our birth?

Actually, educators probably need it more than people in some other walks of life. The classroom is an intellectual test-tube or a laboratory for social adjustment (depending upon whose team you play with), but in any case it is a vital phase —yet artificial in many respects—in the ongoing stream of the "real" world. Sometimes teachers develop the presumptuous image of a society that revolves around its educational system. The fact that Lerner devotes a mere seventeen pages to formal education in America suggests that something less is true. (Incidentally, this reviewer believes that Lerner's meager treatment of education is the weakest part of his *magnum opus*.)

The principal aspects of American civilization described by Mr. Lerner are: immigration, internal migration, natural resources, population, health, social security, housing, food, farming, cities, slums, crime, the decline of the small town and the rise of the suburb, science and technology, corporations, consumers, labor, politics, democracy, law, government, civil rights, minorities, class and status, power structures, family, love, sex and morality, religion, education, the arts, the army, and foreign policy.

The book is largely descriptive, with generous use of evidence from recognized authorities. The problem is to ferret out the nuggets of insight and penetrating analysis that sometimes become overly wrapped in words. But the effort is worth it.

Have you ever asked yourself: "What is the secret of America?" If you have, then Mr. Lerner would say that you have been asking the wrong question. America is pluralistic. It works or operates by checks and balances, by concessions and compromises, and through unity and diversity. Yet there are American characteristics, habits, and traditions that constitute what is sometimes called national character. But what is this? Is it the *novus homo* that DeCrévecoeur wrote about in glowing terms in the late eighteenth century, or is Lerner's description of the post-reformation Western man more fitting: "He is *l'homme moyen sensuel,* not too finicky in his sexual life, about caste or class lines, or about rigid standards of virtue. Hungering for a sense of personal worth, he is torn between the materialisms he can achieve and the feeling of wholeness which eludes him. He has a disquieting sense that the old gods too have eluded him and wonders when the new ones will arrive. Yet, unlike men of previous ages, it is not salvation he is after, nor virtue, nor saintliness, nor beauty, nor status. He is an amoral man of energy, mastery, and power. Above all else, he is a man for whom the walls have been broken down. He is the double figure in Marlowe, of Tamerlane and Dr. Faustus, the one sweeping like a foot-loose barbarian across the plains to overleap the barriers of earlier civilizations, the other breaking the taboos against knowledge and experience, even at the cost of his soul."

A classic has been defined as a book that everyone talks about but nobody reads. The challenge of 1,036 pages in this age of capsulated and readily digestible publications is probably too great to prevent Lerner's work from becoming a classic! Yet for those really interested in learning something about America other than through the nocturnal tranquillization by the happy screen, this volume is unsurpassed. Certainly Lerner's effort ranks among the outstanding works of its kind in the twentieth century thus far.

Vital Race, Good Start, But We Fell Off on a Turn

THE HIGH SCHOOL IN A CHANGING WORLD. Thirty-sixth Yearbook, American Association of School Administrators, Washington, D. C.: National Education Association, 1958. 382 pp. $5.00. Reviewed by Ralph K. Watkins (Gamma 109), *professor of education,* University of Missouri.

A SIGNIFICANT and heartening feature of the current yearbook of the American Association of School Administrators is the statement of faith in the existing high school in the face of pressures of criticism and, at times, almost hysterical outbursts in the public press. This commitment to democratic secondary education as expressed in the evolution of the American high school occurs in both the foreword and in the concluding and summarizing paragraph. It is to be hoped that a similar conviction is held by the great numbers of school administrators for whom the commission preparing the yearbook speaks.

This highly important expression of confidence in the public high school and its future immediately raises with the reader questions concerning the function of the yearbook itself. Is the

yearbook intended as a summary of professional materials for the guidance of administrators within the association? Is the yearbook intended as a document presented by the administrators to the public for the enlightenment and direction of supporters and patrons of public education? Is the yearbook intended to serve a dual function, that of providing the administrator with documented evidence concerning public secondary education, which in turn may be used to promote good relations between schools and patrons?

If the yearbook is intended to serve the first of the above functions, certainly it contains a considerable amount of material which should be known by almost any professionally educated superintendent of schools. This includes much of the material in Chapters One and Two and much that is in Chapters Four, Five, and Six on the community as a force in secondary education, the high school and higher education, and the extension of the common school. Much of the material presented in these chapters is readily available in current professional textbooks which should be on the office library shelves of every administrator. It seems to be a popular pattern in yearbooks of various professional associations to take a long run through history, philosophy, educational psychology, and sociology before trying to resolve the issues with which the volumes purport to deal. Perhaps the space could better be devoted to a greater elaboration of the possible solutions to the problems confronting the professional worker. As an example, in this yearbook it should be unnecessary to re-state for school administrators the *Cardinal Principles of Secondary Education,* or the "Ten Imperative Needs of Youth" from *Planning for American Youth,* a publication of the National Association of Secondary School Principals.

It will be noted that in the later chapters of the volume, dealing with the school program, school organization, district planning, and housing, much of this earlier theoretical and historical presentation seems to be abandoned or lost. At least the utilization of the background material seems somewhat remote.

If the second and third of the proposed functions are most important, those concerned with building understanding and with gaining cooperative support from patrons of schools, then certain materials have crept into the yearbook which contribute little to their realization.

For example, the section on the developmental tasks of youth in Chapter Two is open to considerable criticism and misinterpretation on the part of lay readers, or possibly by newspaper interpreters, if taken out of context. Practical school administrators will tell you that there have been few if any school programs built basically on the developmental tasks. At best, the developmental tasks can serve as partial guides for placement of segments of the school program in terms of the maturities of youth. Chapter Two would be much clearer and much less liable to misinterpretation if *needs* were grouped under the two headings of societal demands and individual needs, with the adjustment of the relationships of the individual to his culture treated as a part of the societal demands.

From this same point of view, the following statement from the summary chapter, "High Schools for Tomorrow," is open to widespread misinterpretation if taken out of its setting:

"3. *The individual student will be the focus of the school, which will be fully oriented to his needs and will be effective in facilitating his growth and development.*"

Elsewhere in the volume there are statements which point to an awareness that the public high school is an instrument of society and that, fundamentally, the school program is determined by the demands of the society which supports the school. However, the statement quoted above, standing out in italics, can be readily picked up and used as a point of attack by the vociferous critics of the left-wing point of view in education. To inform the public concerning the future direction of public secondary schools, it would have been desirable to give greater emphasis to the social control of education.

From the reviewer's point of view, chapters which stand out and deserve the widest publicity both with professional workers and with laymen are: Chapter 12, "Resources for Progress"; Chapter 3, "Programs for Unity and Diversity," especially the statements, page 87, on guiding principles in program design; Chapter 8, "Long-Range District Planning"; and Chapter 10, "Housing the New High School."

The yearbook as a whole is forward-looking and stimulating. It is strong in its recognition of values among the goals of democratic mass education and in its willingness to stand on such goals. It is also strong in its recognition of the need to change with the overall culture of which we are a part and in its recognition of need for continuing investigation and research to enable secondary education to keep pace with "a changing world."

By **JOHN C. PEARSON**

Certainly, We Group Our Students

Achievement grouping in academic subjects permits each child in the Deer Path School to know success and security.

WE have been grouping students in various subjects for a dozen years. We think this type of grouping has many advantages, and to date we have witnessed no harmful results that would suggest going back to heterogeneous grouping. The success we have had is based upon acceptance and understanding by parents, townspeople, administration, teachers, and above all others, the students. In the final analysis, it is the students who determine the success or failure of any such program.

In our completely departmentalized junior high school we have four groups in each grade, ingenuously numbered from one to four, number one being the top group. In the academic areas of English, science, mathematics, and social studies, the children are grouped according to achievement as determined by a standardized test battery and teacher evaluation. In the non-academic areas of homeroom, related arts, music, drama, and physical education, the groups are heterogeneous in ability and achievement, although they may be grouped by sex.

We believe that each child under this organization has a sufficient variety of experiences to enable him to see himself realistically and in relation to others. He recognizes his strength and his weaknesses and learns to capitalize on the former and live with the latter. He is evaluated and graded in relation to his particular academic group, not compared with all children in his grade.

The top group receives more advanced and complicated work than the other groups. They do *NOT* get *more* work. We do not penalize the intelligent by increasing the amount of work required; rather, we reward them by assigning challenging different material to be learned. Each group covers an identical core of knowledge, with the lowest group just finishing it by the year's end. The top group may cover this core by midyear, then continue on to more advanced material in that academic area.

What keeps our children from being dubbed "brains" or "dummies" or stigmatized in some other way? Simply that priceless human quality called initiative. Our program is flexible and the personnel mobile; no assignment to any group is a permanent one. A child knows he can advance to a more rapidly moving group by applying himself—and, correspondingly, that he will be demoted a group if he does not learn up to his capacity.

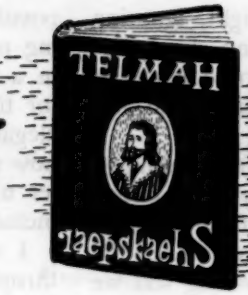
Before each marking period (or more frequently, if it seems warranted), the principal meets with the teachers and the name of each child doing extremely well or poorly is brought up by the teachers of the different subject-matter areas. Facts and opinions are examined and a disposition is made in each case. The principal then calls in each child being shifted and discusses with him the reasons for advancement or demotion and the steps he needs to take to assure success. A letter of explanation is mailed to the parents and the grouping move is made.

Under this arrangement, I. Q. is by no means the controlling factor in grouping. We have an "over-achiever" whose I. Q. measures 103 in our top group. Correspondingly, we have a child with an I. Q. of 125 in our low group. She has not yet learned to learn, but one day she will, and then away she will go, up the grouping scale. In the meantime, she must be helped in the low remedial group where she can know success and get the feelings of security and confidence so necessary to advancement.

Yes, we group homogeneously, and we recommend it to all who are seriously interested in taking children to their highest capabilities in an atmosphere where they realize and accept the fact that they must work to remain in their group, or to advance to a higher academic group. Under these circumstances, each child can know success and experience the undeniably happy feeling that comes with doing a job well or to the maximum of one's ability.

MR. PEARSON *(Upsilon 827) is principal of the Deer Path School, Lake Forest, Ill.*

MAELG EHT WOLLOF



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By KEVIN GUINAGH

EVER since I heard of those two fortunate Germans who wrote a history for their schools and received fifty thousand dollars from Uncle Sam for their trouble, I have been a man in search of an idea. I wanted to find just as important a theme, and then discover some noble Maecenas to reward my writing, preferably a publisher like the United States Government. To captivate the benevolence of any potential sponsor, I am stating categorically at the outset that I will settle for less than the Germans received—much, much less. Perhaps our memoir-writing presidents may feel that fifty thousand is a mere honorarium, even when spread over three years for income tax purposes, but in the provinces we still think of such a sum as a life endowment.

Recently I came upon a potential vein of gold where I never expected to find one—on a page of writing. I had been pacing the ages, trying to find a popular approach to the great mass of learning that gathers dust in our great libraries as well as my own. I wanted a thesis that would stir the people, a subject that would have the word "masses" or "millions" in the title, such as *Spelling for the Masses.* For some time I had noted the curious orthography of certain communications I had been receiving, some from people whom the world erroneously refers to as my superiors. I went to a learned gentleman, high in the councils of educators, and I casually complained of modern deficiency in spelling, thinking he might offer a solution and give me a lead to a pot of gold like the one the two Germans found. I thought his explanation would be a lengthy one, but he brushed my query aside, remarking that stenographic help was available on all sides. I told him that these letters with bad spelling had been typed by stenographers and signed by their dictators, but he shrugged his shoulders, saying the matter was not cosmic, since there is little correlation between spelling and intelligence. He had studies to prove it. Besides, he argued, nature never intended some people to be spellers, and he added an *argumentum ad hominem,* so brilliant that it blinded my vision: "Must I remind you that the Stoics held that we must follow nature as our guide?"

For days I meditated on why some people insist on spelling backwards. Think of such errors as *seige, beleive, thier, sieze,* to name but a few of many. Then, one morning, I cried out with Archimedes, "Eureka! I have found it!" though I was not in the bath, as he was when he discovered specific gravity, nor did I run through the streets *in puris naturalibus,* shouting my discovery. I suddenly realized that all type is set from left to right. Why, I asked myself, is this so? Why are books reading from right to left not available? Now, psychologists have investigated left-handedness in rats, and science was doubtless on the edge of something important, but it failed to follow through. A baseball player may order a glove for his right hand if he is left-handed, and golf club manufacturers are solicitous for this same minority in the population, but we blithely go on

MR. GUINAGH *is head of the department of foreign languages at Eastern Illinois University, Charleston. His published works include novels, biographies, and translations of Greek and Roman literature. His hobbies include the writing of humorous and satirical articles of this kind.*

printing our books from left to right, ignoring millions of Americans whose spelling clearly indicates that they are forced to do violence to their nature by reading and writing from left to right.

I cannot be expected to reveal all my thinking at this time, but let me state that very early Greek writing on excavated materials is from right to left. Those noble, brilliant Greeks! And the Hebrews wrote the same way. How long will we subject the great American reading public (and I am not forgetting television) to the frustrating experience of reading the wrong way?

Now that I have found my subject, I must find a patron comparable to Uncle Sam when he is in a mood as royal as he was when he rained marks upon the heads of those two Germans. Perhaps some research foundation will be pleased to help. I hesitate to suggest an acceptable financial grant for fear that I may put my figure too low, and the board may then think my project trivial and unworthy. If such aid is not forthcoming, I hope some generous person or philanthropic club will send out the word that all anyone need do to help in this crusade is to pin a dollar bill to a piece of paper (any piece of paper will do) and mail it to the author.

If you, a man of vision, are hesitating to sign the check necessary to initiate this research, may I suggest some of the possibilities of prestige, to say nothing of profit, in this venture. The great classics will have to be done over. Perhaps you have seen the names of persons you know on the title pages of the classics and have wondered how such things can be. Perhaps your friends have edited these authors or put together certain notable selections. If you have ever craved the joy of seeing your name on a book, this is your moment to leap. Get into the field early, and you and your partners can do shelves and shelves of standard authors in this new system.

Think of it! The libraries will carry sets of *The Collected Works of Shakespeare* with your name below in gold on every volume. Then, there are other much talked about authors, Milton, Bill Nye, Plato, Aristotle, all in the public domain. Soon other publishers will want to put out competitive sets. Already well established in this new cultural movement, you can afford to be generous. You can quote the Russian proverb: "There is enough room for everybody in the bath." You can now take this generous Russian stance because, when competitors come to print their books, they will find that they must buy *your* recently patented linotypes, *your* new right-to-left typewriters. You are beginning to see the possibilities? Then, by all means invest in building materials—cement, iron, brick, lumber—for in a year or two, political leaders will demand for the hitherto oppressed right-to-lefters just as elegant and just as well-stocked libraries as those now serving the left-to-righters. And by all means let us not underestimate the translation rights, including those in Scandinavian countries.

I would not make this offer to you, philanthropist and man of vision that you are, if I knew what bureau in Washington I should approach. I am passing up the chance of being paid as handsomely as were those two Germans simply because I feel that private enterprise will come to a decision on this project during my present reincarnation. However, if I can find the right desk in Washington, I am prepared to prove to the man who sits behind it that the American officer who sanctioned the publication of the German book that contained communist propaganda was a frustrated reader, forced to read from left to right all his life, whereas nature had intended him to be a right-to-lefter. Poor man, he had been fighting books all his days.

Should you lack courage to endow this project, we shall still be the best of friends. All you need do is pin a dollar bill (or more) to any piece of paper, on which please write (or print) your name and address, and send it to me. Be assured that you will be put on our mailing list once we go into production.

By ROY P. FAIRFIELD

Something New . . . *under the Earth*

The President of Caverna University speaks (A.D. 1980):

"If our explorers are correct . . . the future of the race depends upon you. It is a prodigious challenge, but it comes at a time when the highest ideal appears to be the soundest reality."

TWO months after Hiroshima and Nagasaki, three other graduate students and I, representing diverse interests and hailing from California, Illinois, Texas, and Maine, began a series of weekly meetings in the shadows of Widener Library, Harvard University. Our "seminar" was both informal and unofficial. We simply hoped to learn more about the social, political, and economic implications of THE BOMB. The newspapers and magazines were filled with talk about "secrets." What was the truth? We had no illusions that our effort was unique, nor were we overly sanguine about learning everything about atomic energy. We were working in the humanities and social sciences, not physics. But we shared a desire to make some small contribution toward the establishment of peace.

Throughout the academic year 1945-46 we did our informal research fairly systematically and we pooled our knowledge. We spent many hours discussing "What can we do?" We wrote letters to our Congressmen. We attended meetings sponsored by the various organizations of frightened scientists. The United Nations set-up dissatisfied us. Two of us worked to spread the gospel of World Federalism. At informal meetings with several Harvard faculty members we learned that they were as frightened and confused as we. It was the consensus that "fractional gains" could be made over a long period of time; but, they asked, "Do we have that time when the scientific and military revolution is already launched?"

We even wondered how realistic it was to continue our advanced studies when so much needed to be *done* to awaken people to their plight. The Californian, very sensitive to human suffering, seriously considered resigning from graduate school and devoting himself to "The Cause" . . . if . . . if only he knew how? We shared a common *Weltschmerz*.

As the year rolled by and our ability to *do* anything seemed to diminish, we became increasingly fatalistic. When asked where we intended to teach, we replied cynically, "We're going to establish a university in a Rocky Mountain bear cave!" We wondered if this idea was so silly after all.

TODAY, a dozen years after Hiroshima, when talk of push-button warfare, billion dollar missile programs, and concrete backyard bomb shelters is common fare, I wonder if we as educators have in any sense geared our thinking to the atomic age? Has our reading of Nevil Shute's *On the Beach* really "taken"? Are we psychologically prepared for the kind of speech a college president might make to his freshmen in 1980? Here is that speech:

Young men and women of Caverna University:

This is a momentous occasion in world history. Today you commence the final stage of a program which may alter the course of human destiny. This is a bold statement! It is, however, a realistic one. We of the Caverna University staff are especially sensitive to the critical character of our existence and the importance of our educational program. Before you embark upon it, I am duly bound to charge you with the seriousness of our situation. You are aware of *some* of the facts which I shall mention. You could only guess about some of the events of which I shall speak. And you must believe me when I say that you are the cause of our being.

MR. FAIRFIELD *is an assistant professor in the department of government, Ohio University, Athens.*

In the year 1958 the gigantic subterranean chamber in which we live was procured by the American government and interested citizens of the world, citizens whom we shall honor by dedicating a plaque this afternoon. Billions of dollars were spent to make this cavern inhabitable. You are much too familiar with this vast labyrinth for me to enumerate all the material conveniences we enjoy, the plastic floors, the ray-treated light and air, and the hundreds of other things we use daily. Ten thousand engineers and technicians, carpenters and masons, painters and truck drivers required four years to complete the construction feat. Many of these same people volunteered their lives that this experiment might succeed, but we could not accept all of them. We had to be highly selective in choosing our staff, balancing physical space with human requirements, occupational representation with human need, and so on. But I can assure you that the only standards we used in choosing the men and women for this experiment were dedication and excellence.

You were brought here as infants in 1962, brought here from every country in the world, in fact, four from each nation. You represent what used to be a myriad of races and religions—divisions, as you have learned, which were often as meaningless as they were artificial. Your parents were not only the most intelligent of their nations, they were also courageous and far-sighted. They sacrificed you that man might live . . . IF this experiment were successful. They believed, as did those of us conceiving this experiment, that imminent catastrophe required bold action. The course of events has borne out our fears.

Seven Days' War Wiped Out Humanity

Last week we again sent our especially-designed jet planes and helicopters on an inspection tour of the globe. Thanks to the research of Doctors Bliss and Equaninimous, our pilots and scientists made a more systematic analysis of the earth's surface than they accomplished last year. It appears fairly probable that the Seven Days' War wiped the human race from the earth. Rats occupy the crumbled ruins of cities. Vast areas of flora are devastated. New greenery has started to grow, but many of the plants, samples of which are now being examined in our laboratories, are very strange. The surface of the earth is saturated with radio-activity and peculiar gases lie in the deeper topographical depressions. The earth is obviously uninhabitable at the moment, and it is difficult to predict when man will be able to live as he was once wont to do. Meanwhile, we shall look to the past in preparing for the future. Today, you enter upon a four to eight year course of study here at Caverna.

For sixteen years, now, we have lived together as a great family. We have learned the value of cooperative living as well as individual achievement. Your nurses and your teachers have shown you how to live peacefully in a community by respecting the rights of others. We hope that our conduct as officers of the community has been exemplary without sacrifice of individuality. The work of men like Doctor Lichstein, for example, whose application of hydrogen energy to the problem of heating and lighting was made just prior to the exhaustion of natural fuel . . . his work, as I say, is certainly worthy of emulation.

At Last—Truly General Education

More specifically, however, your education to this point has been primarily one of learning method. You now know how to use the basic tools—spelling, mathematics, grammar, and logic. We have also used every known audio-visual device to help you appreciate man's great heritage of painting, music, and literature. The groundwork is laid. You are now ready to pursue the course on which the Caverna faculty has been working for sixteen years.

This course was known as college or university education in the pre-holocaust era, and there seems to be no particularly good reason for changing its name here at Caverna. But we are altering to some degree the work you will do. As your faculty well remembers, back in the 1940's a movement known as "general education" was widely adopted in American colleges and universities. It took many forms, but it was a reaction to the overspecialization of the previous half century. Most general education programs attempted to achieve some integration of subject matter, to make unity out of diversity, to give some sense of wholeness at a time when so many educational, economic, and political forces were becoming centrifugal. This type of education offered much promise. Even the largest of universities adopted one type of plan or other; often there was not enough follow-up to check the success of the programs; nor were educators quite certain how to establish criteria for such evaluation. It is true, nevertheless, that many educators felt that this course of action was man's best hope.

Many liberal-minded editors of newspapers and magazines, in Europe, Asia, and America, took

up the fight for general education. The president of one of America's most venerable universities proposed its universal adoption. Medical schools and industries advocated it as a prerequisite for specialized work. But differences in political and economic ideology beclouded the atmosphere. Misrepresentation bred misunderstanding; misunderstanding tried men's patience. A few countries were reluctant to adopt the plan for fear of undermining their form of government. Then, too, the so-called statesmen were out of sympathy with what seemed to be a long-range program. Missiles became more important than words; propaganda gradually overpowered the truth. We all know the result . . . war, catastrophe, racial suicide . . . chaos.

But all this is changed at Caverna. You will, of course, study many topics, just as your ancestors did. By the time the earth's surface is inhabitable you will all be specialists. But you will be specialists with a world outlook, or perhaps I should say a cosmic outlook. During the next few years you will devote roughly half of your time to engineering, law, or whatever you choose (within the limits of demand in returning to the earth's surface), but you will devote the other half of your time to the key ideas, issues, and men of Eastern and Western civilizations. You will attempt to fathom their significance in their own time, their significance for yours. And while details are significant, we must not become lost in them. We must gain the broadest vision of which the mind is capable. To gain this perspective, we shall depart from the outmoded notion that each discipline—history, literature, economics, physics, etc. —is separated from every other discipline. This is no time for such iron curtains. Rather, each of your professors is a kind of philosopher, or, Lord knows, he wouldn't be here. Each of your professors has trained sixteen years for this moment. Consequently, each will approach his own subject matter philosophically. You will be trained to look for the inter-relationships between the various areas of study, also the connection between your chosen profession and each of these areas. We shall place great emphasis upon the part human nature has played in the development of human history . . . in the hope that a new basis will be layed for human understanding, human planning. Sixteen years of cooperative research have given us the basis for a new theory of learning, one which we believe in.

Great hopes? Great ideals? Great plans? Yes, emphatically so! But we sincerely believe that each of you possesses the attitudes, the values, and the knowledge to make the most of the challenge. We believe that you will be prepared to go into the atomic wilderness to build a civilization more worthy of the human species than that demolished a few years ago.

These are broad generalizations, but the details are fully developed. Our librarians have readied the books, films, and records. The laboratory technicians are prepared to give you the material you shall require. Our cooks, maids, street cleaners, the whole community—all are prepared to help you help yourself during the next decade as they have helped you since you were babies. Your professors are anxious to begin. You will continue to work in small groups. You are encouraged, as always, to ask questions and more questions. You have vindicated the faith of Socrates a thousand times over, and our lives are yours for the asking.

Meanwhile, let us not become so thoroughly engrossed in specific details that we lose sight of our long-range objectives. If our explorers are correct in concluding that the earth's surface is barren of human life, then it may be that the future of the race depends upon you. It is a prodigious challenge, but it comes at a time when the highest ideal appears to be the soundest reality.

Austin, Tex.—While athletic coaches are busy recruiting muscle-power, the University of Texas Ex-Students' Association has launched a plan to recruit brainpower.

An "Alumni High-School Visitation Program" has been inaugurated this spring to interest the better high-school students in attending the university.

With unrestricted funds donated by Texas-Exes, the Ex-Students' Association will pay expenses of university administrators and counseling teams to visit Texas high schools to inform students of what the university has to offer.

Urbana, Ill.—Seventy-five high-school seniors with superior scholarship records and a need for financial help will be selected by the University of Illinois this spring and assigned to jobs in the university providing earnings from $300 to $500 for the academic year. The program is experimental and, if successful, may be expanded in future years, according to Dean C. W. Sanford.

High-school principals are being invited to send in names and qualifications of high ranking, deserving students whom they believe should be considered for this program.

By HARRY A. JOHNSON

The *Double-Barreled* EFFECTS OF TELEVISION

TV is the most powerful new force in education—and it can operate for good or evil. Here is a new statement of the responsibilities teachers and parents must accept if this force is to be used in the best interests of children.

IN recent years a great deal has been written about the effects of television on young children. Surveys upon surveys have been made. The published results have been surprising—and conflicting. In reviewing these results, it is quite apparent that television, like a drug, can be beneficial or harmful.

A recent survey, published in *The Nation's Schools,*[1] indicates that children generally prefer mystery and crime programs, which constitute 41 per cent of those viewed. Another survey indicates that many children watch television excessively, many spending twenty hours a week or more before the set. Moreover, teachers and parents report behavior and adjustment problems associated with television viewing, and point to a decline in reading, in playing games, and in other activities necessary or desirable for healthy growth.

One teacher critic says, "I have known children before and after the family bought television receivers. The intelligent ones slow down somewhat. The average ones slow down even more. All of them stay up too late watching the set. Children without TV go out and play at recess; the others are too tired from late hours."

A typical homemaker stated, "I haven't exchanged more than a dozen sentences with our friends in weeks; we [our family] sit in a dark room and watch two hairy wrestlers roll on a mat growling. The children cry, 'Oh, goody, goody! We are going to see an operation, blood and everything.' "

On the other hand, some surveys have been enthusiastic in reporting the desirable consequences of television on child behavior. Alyce Seekamp says, "Contrary to popular opinion, television is not displacing reading. Children, it seems, see something on TV, then develop a hunger to read the book."[2] Arnold L. Lazarus writes that "both elementary and secondary school youngsters are reading more than ever, according to 'unanimous reports' of school and public libraries."[3] Virginia Brown records another plus for TV viewing. She quotes a number of mothers who gave examples to show that TV stimulates interest in science, geography, literature, and history. They tell of their children turning to such books as *Treasure Island, David Copperfield, Peter Pan,* and *The Hunchback of Notre Dame* after the stories were televiewed. One mother says, "Our boys study plants in the meadow because scientists on TV talk to them about plant wonders. They learn about animals on *Zoo Parade*. *Industry on Parade* gives them a true picture of the life of city workers."[4]

What do these conflicting reports tell us as educators and parents? It is apparent that television, even more than other media of mass communication, is inherently an illuminating and creative medium. It can foster desirable growth. Or it can be a monster and pervert growth. The answer is simple: *controlled viewing.*

What can teachers do to develop controlled viewing? The effort must result in three-way cooperation among teachers, parents, and pupils. First of all, teachers need to be familiar with the

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[1] Weathers, Garret R. "TV Programs Monopolize Attention, Postpone Bedtime," *The Nation's Schools,* December, 1954, p. 49.
[2] Seekamp, Alyce, "The Teacher's Role in Television," *Children and TV,* edited by C. Carr. Washington: Association for Childhood Education International, 1954.
[3] Lazarus, Arnold L., *Educational Leadership,* January, 1956.
[4] Brown, Virginia, "Is TV Running Your Household?" *Farm Journal,* September, 1955, pp. 120-121.

slate of television offerings. They must view as many programs as possible in order to be qualified to say to parents, "These are the programs which we suggest for Johnny's viewing." Teachers may also wish to assign home viewing for classroom discussion. However, care should be exercised in districts where some homes are without TV sets.

Teachers can attend workshops and courses in educational television which will help them to crystallize their own thinking about the value of television, develop discrimination with regard to programs, and suggest proper utilization.

There are many ways in which teachers may approach classroom television work. To begin with, a census of programs watched by children might be illuminating. Periodic reporting on and discussion of selected programs should be considered. Teacher and pupil criticism of programs, supported by "group viewing" both in and out of school, would be helpful. The classroom bulletin boards can be used to display newspaper articles, booklets, pamphlets, charts, and other literature dealing with current and future television programs. Teachers can guide youngsters in presentations of classroom and assembly programs built on formats similar to ones presented on television.With proper guidance, children may alter their viewing habits to see a variety of presentations. Proper utilization will result in the integration of TV programs with reading, research, creative writing, and discussions of current issues.

It has been said that creative activities have been hit badly by the advent of television. But an ingenious teacher can suggest certain television programs to stimulate participation by youngsters in such creative arts as instrumental music, singing, painting, photography, and acting, writing, and other speech arts.

Teachers can develop powers of evaluation through such activities as presenting a make-believe telecast, developing a TV program schedule, and preparing assigned viewing. Television reports, like book reports, can be a factor in influencing discrimination in viewing.

Thus the teacher can become the essential factor in developing controlled viewing. She should be in a position not only to assist in the selection of programs, but through careful guidance and planning she can help children to grow through the good programs they watch.

What can parents do to help develop controlled viewing? Parents must keep the lines of communication open with teachers and assist them in developing the child's discrimination in viewing. Thus a parent may set a time limit on television viewing in the home. Parents must draw the line on the number of hours their children watch TV in a given day. They should, of course, plan more healthful activities for Saturday and Sunday time—outdoor games, family activities, community group participation, religious or character training.

Like teachers, parents should keep abreast of the good TV programs, both educational and entertainment, that are available for youngsters. Most studies of viewing habits agree that left to his own devices the average youngster spends from twenty to thirty hours a week in front of a television set when he is between 7 and 13 years of age; therefore, it is going to be up to the parent to enforce controlled viewing.

A recent survey made by the Virginia State College Audio-Visual Center pointed up many interesting facts about television viewing habits of third and sixth grade children in the Petersburg, Virginia, elementary schools. Some of these results indicated apparent apathy, total disinterest, and negative attitudes by parents concerning their children's TV habits. Some of these habits are listed below:

1. Among 229 children interviewed, it was discovered that *popular hit song* programs were most often watched by 209.

2. *Quiz* programs and *variety* programs followed with 158 and 152 respectively.

3. Out of twenty different types of programs mentioned, *grand opera, symphony orchestra, science, classical songs,* and *ballad, folk,* and *art songs* were those least liked by the children interviewed.

4. Only eighteen children out of 229 liked *grand opera;* only 27 preferred ever to listen to *symphony orchestras.*

5. Sixty-three children had developed the habit of studying and watching television at the same time.

6. Two hundred and one of the 229 watched television after the evening meal—many until the late show (around midnight).

7. Eighty-three indicated that their parents punished them for misbehavior by not letting them watch television.

8. Over one-half of the children liked to watch commercials.

9. Parents of only sixty-seven placed upon them any restrictions whatsoever insofar as television viewing was concerned.

10. Of the many programs available on three to five channels in the Petersburg area, the five mentioned most often as favorites were, in this order: "Teen Age Party," a local program; "Roy

Rogers," and tying for third place, "Mickey Mouse," "Cheyenne" and "Rin-Tin-Tin."

We should like to point out some of the possible double-barreled (good and bad) effects of viewing TV. Surveys and tests have proven that each or all or any combination of these effects are fact or possibility.

Some distinct advantages of television for children:

1. It can increase interest in classroom subject matter and stimulate better work through intrinsic motivation.
2. It can broaden children's scope of knowledge and understanding, especially among those youngsters whose desirable cultural experiences are limited.
3. It can increase reading ability, improve living habits, and increase understanding of the world.
4. It can provide excellent, high-quality entertainment. (The one-shot programs such as "Peter Pan," "Wide Wide World," and "The Lady from Philadelphia" are examples.)
5. It can be, with proper teacher guidance, a stimulant for science exploration. ("Zoo Parade" and "Industry on Parade" are examples.)
6. It can increase vocabulary.
7. It can develop interest in a wide variety of topics.
8. It can develop desirable attitudes toward other peoples, other nations, and other races.

These distinctive advantages are secured only when the teacher and the parent have collaborated with the child to help him develop his highest potentials through controlled television viewing.

Some distinct disadvantages of television for children:

1. It is easy for viewing to become excessive. Many children watch programs beginning as late as midnight.
2. It can develop bad meal habits. Children watch television excitedly while choking down the evening meal. This is poor psychologically and a deterrent to the development of proper cultural and health habits.
3. It can permit youngsters to select mystery and crime as their major program interests.
4. Excessive viewing can lower academic attainment.
5. It can increase nervousness, fatigue, and eye strain.
6. It can develop impoverished play habits (decreasing such activities as baseball, hopscotch, and other typical socializing sandlot or backyard games).
7. It can cause children to read less.
8. It can substitute for family life and seriously reduce communication and conversation in the family circle.
9. It can decrease inter-family visitation, so that children fail to develop new friends and neglect old friendships.
10. It can adversely affect the development of habits of responsibility in the home, diminishing routine chores and the like.
11. It can contribute to poor study habits.
12. It can foster poor taste, bad manners, and prejudice.

It is true that teacher organizations, PTA's, and other public-spirited groups may bring some force to bear on the type of programs being telecast. However, we are not optimistic about the possibility of pressure groups curbing to any great extent what is transmitted on television today and what will be dared in the future. Recent Supreme Court rulings and court tests have been most favorable to people who publish and produce what they choose. Efforts by organized groups to censor films, TV shows, radio programs, etc., are being weakened. Because of this very weakness, teachers and parents must determine to control the television viewing habits of children, as they do reading and other habits developed through healthy discrimination.

Low IQ? This Will Help

"This intelligence-testing business reminds me of the way they used to weigh hogs in Texas. They would get a long plank, put it over a crossbar, and somehow tie the hog on one end of the plank. They'd search all around till they found a stone that would balance the weight of the hog and they'd put that on the other end of the plank! Then they'd guess the weight of the stone."

—Attributed to *John Dewey* by *Sidney J. Harris* in the *Chicago Daily News*

The Library in Educational Research

A useful work for students and researchers is now available from the Bureau of Educational Research, Ohio State University. It is Ruth E. Seeger's *Using Library Resources in Educational Research*, 26 pp., 75¢. The author has been reference librarian in the Bureau of Educational Research at Ohio State for many years. In this position she has helped hundreds of students. Her booklet provides answers to the questions that are most frequently asked.

Errors in Commonly Misspelled Words In the Intermediate Grades

By GEORGE C. KYTE

A long-time leader in Phi Delta Kappa demonstrates the kind of on-the-job research a teacher may do to help himself and others.

THE purpose of this study was to analyze the nature of spelling errors occurring in commonly misspelled common words in the intermediate grades. Since the larger number of correct spellings has no bearing on the nature of errors, only misspelled words are included. Because of the general practice in grade placement of words, the data regarding eighteen words covers grades four through six and for forty-two others, grades three through six. A series of tests similar in design to the *Morrison-McCall Spelling Scale*[1] was constructed to obtain the data.

Mistakes in each word were analyzed and tabulated to determine (1) types of misspelling and (2) nature of specific errors. The set of column headings in the accompanying tables indicate the detailed nature of the findings.

The total number of misspellings per word ranges from eighty-three for *arm*, to 276 for *question*. Since the Pearson coefficient of correlation between number of misspellings per word and the number of ways of misspelling it is .48, there is some correlation between the two sets of items. Three words, *their, begin,* and *passed,* have relatively high totals of misspellings and low total number of ways misspelled. *Several, excuse* and *never* have a relatively high number of ways misspelled to total number of misspellings.

In Table I are the twenty-three words classified as having only one common type of misspelling. The typically wrong spellings of *almost* and *already* illustrate the hindering influence of a very commonly used word retained unmodified. The omission of *ed* from *asked* exemplifies a type due to either carelessness or failure to hear the *ed* pronounced. The confusion of *passed* with *past* is characteristic of various misspelled homonyms. *Eat* for *ate* is partly caused by the colloquial mispronunciation, *et,* and partly by the substitution of the former word for the latter. *l* omitted from *family* seems to be caused largely by its mispronunciation as a word of two syllables. The omission of the silent *e* from *before, makes* and other words can be due to carelessness or to phonetic misspelling. Typical misspellings of *sugar* and *they* represent cases of phonetic errors. The inversion of *i* and *r* in *first* illustrates one kind of handwriting error. The carelessly formed and undotted *i* in *given* exemplifies another. Failure to double the *t* in *matter* may be caused by either carelessness or partially phonetic misspelling.

Table I shows that the specific errors per word range from one, as in the case of *before,* to four, in *vacation.* These two extremes in the table illustrate the partial effect of the kind and number of errors per word on the total ways of misspelling it. In most cases where two or more specific errors occur per word, one mistake is more common than another. Exceptions are to be noted in the substitutions of *e* for *i* and *i* for *e* in *given, c* omitted from *lock* and *e* added to it. Although the last mentioned error may be partly due to faulty visualization, it is also caused, as in the case of other similarly misspelled words, by the teacher's overemphasis in pronouncing the final consonant. *K* or *c* in *vacation* and *t* for *ed* in *asked* illustrate other kinds of phonetic errors. *I* for *u* in *busy* may be another kind or a handwriting error.

In Table II are included the fourteen words with two common types of misspelling. *Any, enough, health,* and *people* are the only four words with almost equally divided numbers of cases of two common types of misspelling. In many instances the typical misspellings in the list are similar to those noted for words in Table I. The two types of misspelling of *during* indicate the influence of the more commonly used *doing.* The *t* added to *enough* discloses the influence of words ending in *ought.* The misspellings of *hoping* present the failure to drop the *e* when

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[1] J. C. Morrison and W. A. McCall. *Morrison-McCall Spelling Scale.* World Book Company, 1956.

TABLE I

WORDS WITH ONE TYPICALLY MISSPELLED FORM IN INTERMEDIATE GRADES

Word	No. of Misspellings III	IV	V	VI	Total	No. of Ways	Common Type	No. of Occurrences III	IV	V	VI	Total	Specific Errors	No. of Occurrences III	IV	V	VI	Total
almost	21	23	28	15	87	26	allmost	6	14	19	8	47	*ll* for *l*	13	17	20	10	60
													n for *m*	4	4	6	4	18
already	....	46	45	25	116	44	allready	....	13	11	8	32	*ll* for *l*	....	28	19	12	59
													y omitted	....	11	12	7	30
													e for *ea*	....	10	8	4	22
													a for *ea*	....	8	3	1	12
arm	39	23	13	8	83	41	arme	7	7	6	4	24	*e* added	13	11	7	6	37
													n for *m*	12	4	3	1	20
													r omitted	8	3	0	0	11
asked	29	33	12	22	96	37	ask	15	11	3	17	46	*ed* omitted	16	12	4	17	49
													t for *d*	10	11	8	0	29
ate	64	24	19	10	117	24	eat	32	11	11	7	61	*ea* for *a*	35	13	14	8	70
													et for *te*	14	4	2	0	20
before	45	29	26	11	111	7	befor	38	26	24	10	98	*e* omitted	42	27	24	11	104
family	....	45	53	31	129	66	famly	....	10	7	7	24	*i* omitted	....	15	21	15	51
													ey for *y*	....	6	13	3	22
													n for *m*	....	8	10	4	22
													l misplaced	....	7	9	3	19
first	45	36	27	16	124	35	frist	12	4	18	9	43	*ri* for *ir*	14	8	19	9	50
given	25	33	26	17	101	32	geven	2	12	6	4	24	*e* for *i*	6	14	9	9	38
													i for *e*	6	8	11	5	30
great	29	40	30	28	127	37	grate	10	19	20	19	68	*ate* for *eat*	11	19	21	20	71
													e omitted	16	3	2	1	22
hear	35	38	11	8	92	10	here	28	24	6	6	64	*ere* for *ear*	28	24	6	6	64
lock	69	38	10	6	123	33	loke	17	14	2	1	34	*e* added	24	15	3	1	43
													c omitted	21	14	3	1	39
													a for *o*	10	3	2	1	16
makes	55	33	25	16	129	32	maks	24	15	8	3	50	*e* omitted	45	21	11	3	80
matter	25	32	35	29	121	21	mater	13	23	26	18	80	*t* for *tt*	19	25	29	18	91
more	46	25	15	8	94	28	mor	15	9	6	0	30	*e* omitted	21	13	11	1	46
order	31	30	31	14	106	52	oder	3	8	9	8	28	*r* omitted	4	9	12	9	34
own	52	48	28	20	148	33	one	14	17	8	10	49	*w* omitted	23	25	9	11	68
													u for *w*	8	8	9	1	26
passed	52	48	58	47	205	22	past	28	44	38	34	144	*t* for *sed*	34	44	39	35	152
													st for *ss*	5	3	18	4	30
past	17	28	26	24	95	21	passed	8	14	16	11	49	*sed* for *t*	9	16	17	11	53
													ed added	3	4	7	2	16
sugar	35	55	34	15	139	55	suger	13	24	20	14	71	*e* for *a*	26	37	30	15	108
													sh for *s*	7	13	7	0	27
they	48	35	11	6	100	21	thay	33	27	9	3	72	*a* for *e*	38	30	9	4	81
vacation	....	58	51	37	146	86	vaction	....	9	20	23	52	2nd *a* omitted	....	30	26	30	86
													c omitted	....	10	6	1	17
													ca omitted	....	6	6	4	16
													k for *c*	....	10	2	0	12
while	33	25	22	23	103	54	wile	9	9	5	9	32	*h* omitted	24	17	12	19	72
													ll for *le*	6	2	2	6	16

TABLE II

WORDS WITH TWO TYPICALLY MISSPELLED FORMS IN INTERMEDIATE GRADES

Word	No. of Misspellings III	IV	V	VI	Total	No. of Ways	Common Type	No. of Occurrences III	IV	V	VI	Total	Specific Errors	No. of Occurrences III	IV	V	VI	Total
any	62	27	32	10	131	47	eny	8	4	4	2	18	*e* for *a*	23	12	13	5	53
							eney	9	3	5	0	17	*ey* for *y*	14	4	11	7	36
													e for *y*	9	11	4	0	24
careful	....	43	42	20	105	53	carful	....	11	14	10	35	*e* omitted	....	17	18	12	47
							carefull	....	6	5	2	13	*ll* for *l*	....	9	6	3	18
color	42	51	29	30	152	68	coler	11	10	3	14	38	*er* for *or*	22	16	9	19	66
							colar	1	4	6	5	16	*cl* for *col*	9	10	5	3	27
													ar for *or*	3	8	7	6	24
during	....	62	57	34	153	58	doing	....	19	13	9	41	*o* for *u*	....	33	25	14	72
							doring	....	5	8	4	17	*e* for *u*	....	3	9	3	15
enough	....	43	44	27	114	68	enofe	....	6	7	1	14	*f* for *gh*	....	19	13	9	41
							enought	....	4	4	5	13	*u* omitted	....	14	11	3	28
													t added	....	4	7	8	19
													e added	....	6	7	1	14
													o omitted	....	8	3	2	13
health	....	60	60	29	149	53	heath	....	13	14	9	36	*e* for *ea*	....	23	19	10	52
							helth	....	10	13	6	29	*l* omitted	....	17	14	10	41
													2nd *h* omitted	....	6	10	2	18
hoping	....	51	38	26	115	15	hopeing	....	32	20	12	64	*e* included	....	33	21	12	66
							hopping	....	8	14	13	35	*pp* for *p*	....	10	15	14	39
paid	50	34	40	21	145	23	payed	19	11	13	7	50	*ed* ending	27	15	16	13	71
							pade	6	11	10	5	32	*yed* for *id*	21	14	13	7	55
													ade for *aid*	6	11	10	5	32
people	31	45	42	20	138	55	peple	4	5	3	7	19	*o* omitted	8	22	17	12	59
							pople	7	3	3	1	14	*el* for *le*	3	10	7	3	23
													1st *e* omitted	8	4	3	2	17
													ol for *le*	2	7	4	3	16
question	27	121	84	44	276	152	qustion	2	18	16	8	44	*e* omitted	8	32	23	14	77
							quistion	1	5	6	7	19	*i* for *e*	2	26	17	13	58
													i omitted	3	19	16	8	46
													s omitted	2	20	11	3	36
													e for *o*	9	13	0	1	23
summer	69	38	29	10	146	42	sumer	5	7	8	3	23	*m* for *mm*	14	12	9	4	39
							sunner	6	5	1	0	12	*n* for *m*	14	9	10	6	39
													o for *u*	10	5	2	0	17
table	44	33	22	6	105	41	tabel	4	11	11	1	27	*el* for *le*	6	12	12	1	31
							tabl	5	3	4	0	12	*e* omitted	7	4	4	1	16
													l omitted	11	3	1	0	15
to	36	28	30	16	110	4	too	30	16	28	12	86	*oo* for *o*	30	16	28	12	86
							two	2	10	2	3	17	*wo* for *o*	2	10	2	3	17
trade	31	25	30	12	98	25	trad	13	5	8	4	30	*e* omitted	16	8	9	5	38
							traid	1	3	10	3	17	*aid* for *ade*	2	4	10	3	19
													ead for *ade*	4	4	3	1	12

TABLE III

WORDS WITH THREE TYPICALLY MISSPELLED FORMS IN INTERMEDIATE GRADES

Word	No. of Misspellings III	IV	V	VI	Total	No. of Ways	Common Type	No. of Occurrences III	IV	V	VI	Total	Specific Errors	No. of Occurrences III	IV	V	VI	Total
awful	....	73	72	41	186	68	alful	....	11	19	14	44	*l* for *w*	....	17	31	18	66
							offul	....	8	5	0	13	*w* omitted	....	20	11	10	41
							aful	....	4	7	2	13	*off* for *awf*	....	21	14	4	39
													ll for *l*	....	16	9	8	33
begin	39	74	78	54	245	45	begen	7	21	25	14	67	*e* for *i*	8	24	26	16	74
							begine	1	20	12	6	39	*a* for *i*	6	22	13	7	48
							begain	0	6	13	14	33	*e* added	2	22	15	7	46
													ai for *i*	1	10	15	18	44
brought	84	47	21	27	179	53	brot	16	6	0	2	24	*gh* omitted	52	36	7	13	108
							broght	9	4	1	7	21	*u* omitted	49	23	8	17	97
							brout	4	3	2	3	12	*e* added	7	4	3	4	18
church	35	32	21	18	106	51	cherch	4	7	4	0	15	*e* for *u*	9	9	6	0	24
							chrch	6	5	0	0	11	*u* omitted	10	6	2	0	18
							chruch	3	1	3	3	10	*a* for *u*	1	5	4	8	18
													ru for *ur*	4	2	3	4	13
evening	....	41	34	22	97	34	eveing	....	12	14	10	36	1st *n* omitted	....	15	18	10	43
							evning	....	7	2	1	10	*ing* omitted	....	2	5	6	13
							even	....	1	5	3	9	2nd *e* omitted	....	8	3	1	12
present	....	53	44	33	130	83	preasent	....	1	3	5	9	*ea* for 1st *e*	....	2	9	8	19
							presant	....	3	2	4	9	*a* for 2nd *e*	....	5	6	7	18
							presnt	....	6	1	2	9	*a* for 1st *e*	....	5	7	4	16
													r omitted	....	4	8	2	14
													i for 1st *e*	....	6	5	1	12
													n omitted	....	7	2	2	11
remember	....	69	71	34	134	39	rember	....	30	32	13	75	*em* omitted	....	42	33	14	89
							remeber	....	13	12	5	30	2nd *m* omitted	....	16	14	5	35
							remenber	....	0	8	4	12	*r* for 2nd *m*	....	3	15	11	29
													n for *m*	....	6	9	7	22
said	58	38	19	7	122	25	sead	7	9	8	1	25	*ea* for *ai*	8	11	10	3	32
							siad	8	7	2	1	18	*ia* for *ai*	9	9	3	1	22
							sed	8	4	1	0	13	*e* for *ai*	10	5	1	0	16
several	....	72	70	41	183	115	severel	....	2	5	8	15	*el* for *al*	....	9	16	13	38
							severl	....	7	5	2	14	*or* for *er*	....	16	10	5	31
							sevral	....	5	4	4	13	*sa* for *se*	....	15	7	2	24
													2nd *e* omitted	....	8	6	9	23
													a omitted	....	7	6	2	15
													er omitted	....	4	7	4	15
soon	44	34	15	13	106	30	sone	8	10	6	4	28	*e* added	9	14	7	4	34
							sune	3	8	1	1	13	*o* for *oo*	17	10	5	2	34
							son	9	3	0	0	12	*u* for *oo*	4	10	3	5	22
													m for *n*	7	2	3	1	13
surprised	....	73	82	61	216	116	surprise	....	3	8	11	22	*d* omitted	....	21	33	36	90
							suprise	....	3	8	4	15	1st *r* omitted	....	16	28	18	62
							suprised	....	2	8	4	14	2nd *r* omitted	....	12	6	7	25
													z for 2nd *s*	....	9	4	10	23
													pp for *p*	....	5	7	9	21
there	43	41	26	9	119	26	their	12	12	4	3	31	*eir* for *ere*	15	13	4	4	36
							ther	10	6	6	1	23	2nd *e* omitted	13	8	7	2	30
							thear	1	7	8	2	18	*ear* for *ere*	2	9	8	2	21

adding *ing* and the tendency to double the consonant, *p*.

Generally, the number of instances of specific error per word exceeds noticeably the number of typical misspellings. The common specific errors in the misspelling of *question* are omissions of *e*, substitutions of *i* for *e*, omissions of *i*, omissions of *s* and substitutions of *e* for *o*. The last three errors do not appear in the typical misspellings. The number of specific errors also emphasizes the difficulty of the word in grades three and four.

The *ed* ending and the substitution of *yed* for *id* in *paid* disclose the persistent impact of *pay* on its derivative. Besides the two specific errors contributing to the types of misspelling *any*, a third error occurs, the substitution of *e* for *y*. The writing of *n* for *m* in *summer* and the omission of *o* from *people* become more common as errors than the analysis by typical misspellings would seem to indicate. The inversion of *l* and *e* in *people* and *table* may be a handwriting error or a phonetic mispronunciation, *el*.

Twelve words in Table III are cases of three types of misspelling. With the exception of *church*, *present*, and *several*, one typical misspelling is more common than either of the other two. The specific numbers of errors per word, ranging from three to six, include similar patterns of mistakes noted in the words in Tables I and II.

The much larger numbers of specific errors than were present in the typical misspelling of the word are illustrated by the substitution of *l* for *w* in *awful*, the omissions of *gh* and *u* from *brought*, the omission of *em* from *remember* and the omissions of *d* and the first *r* from *surprised*. The specific errors affecting the middle syllable in *evening*, *remember*, and *several* indicate the tendency to spell some trisyllabic words as having only two syllables.

In Table IV are the four words having four types of misspelling. Although the very common misspelling of *their* is the substitution of its homonyn, the second type, *ther*, may be the omission of *e* from *there* or the omission of *i* from *their*. These possibilities are also evident in the misspelling of *there* (Table III.) The misspelling of *bored* for *board* is most common in grades four and five. The substitution of *broad* for *board* probably influenced the inversion, *ra*.

Among the specific errors in the misspelling of snow, *own* for *now* and *on* for *no* are about equally common. The latter inversion and the omission of *n* are primarily grade three errors. *Wh* for *w* in *weather* and *e* for *ea* disclose the influence of *whether* on the misspellings. Phonetic spelling may account for some of the errors. The omission of the first *e* and the inclusion of *r* in the first syllable seem to be caused by poor visualization of the word.

Table V contains the seven words having no clearly determined type of misspelling. There were slight tendencies to misspell *beautiful* as *butful*, *busy* as *buzy*, *excuse* as *exuse*, *pretty* as *pertty* and *flowers* as *flour*. These respective scant trends are more clearly evident in the listed specific errors for all the words except *flowers*. Other specific mistakes for these words and also for *never* and *soft* are primarily similar to those noted for the words in the preceding tables. New ones are noticeable in the substitutions of *e* or *i* for *u* in *busy*, omission of *a* from *beautiful*, substitutions of *s* for *c* and *c* for *s* in *excuse*, the omission of *w* from *flowers*, and also the writing of *a* for *o*, the omission of the second *e* from *never* and the omission of *t* from *soft*.

The findings point to the importance of discovering not only the common words commonly misspelled in various school grades but also the nature of both typical misspellings and specific errors. The analysis of misspellings contributes to the determination of characteristic mistakes in a group of misspelled words. Prominent among them are errors due to the confusion of homonyms, the influence of a small common word occurring in a longer one, use of the wrong tense of a verb, use of the wrong number of a noun, the omission of the silent *e*, erroneous doubling of consonants, failure to double a consonant and retention of the final *e* when adding *ing*.

Various pairs of letters which sound alike cause errors such as the selection of the wrong suffix, *er*, *or*, or *ar*, and the wrong choice of a vowel in the middle of a word, *ur*, *er*, or *ir*. *En* for *an* in *any* and also *e* for *y* illustrate two other kinds of error. Phonetic substitutions of one vowel for two are exemplified by *e* for *ea*, *a* for *ai*, *o* for *oa* and *u* for *oo*. The tendency to omit the middle syllable of a trisyllabic word is also noticeable.

Finally, handwriting errors constitute many mistakes in spelling. The most common ones noted are *n* for *m*, *a* for *o*, *e* for *i*, *i* for *e*, *i* for *u*, and *u* for *w*. Some errors are due to carelessness but others are caused by writing difficulties. In the latter case, forming the letter may be hard or its connection with another letter is imperfectly established. Omission of a letter may be due to carelessness or to some definite cause, readily diagnosed or obscure.

TABLE IV

WORDS WITH FOUR TYPICALLY MISSPELLED FORMS IN INTERMEDIATE GRADES

Word	No. of Misspellings III	IV	V	VI	Total	No. of Ways	Common Type	No. of Occurrences III	IV	V	VI	Total	Specific Errors	No. of Occurrences III	IV	V	VI	Total
board	....	34	55	30	119	24	bord	....	16	20	7	43	*a* omitted	....	17	22	7	46
							broad	....	3	8	7	18	*roa* for *oar*	....	7	18	13	38
							borad	....	2	7	5	14	*ra* for *ar*	....	4	8	5	17
							bourd	....	3	5	4	12	*u* for *a*	....	4	7	5	16
snow	58	28	16	7	109	41	sown	4	7	7	2	20	*n* omitted	21	6	1	1	29
							sonw	6	1	5	0	12	*own* for *now*	5	8	7	3	23
							sow	5	2	0	1	8	*on* for *no*	15	2	5	0	22
							sowe	3	4	0	0	7	*e* added	5	10	2	0	17
their	107	72	38	32	249	29	there	31	36	15	16	98	*ere* for *eir*	32	38	17	16	103
							ther	25	6	4	1	36	*i* omitted	27	8	4	1	40
							thier	7	5	8	10	30	*ie* for *ei*	8	6	8	11	33
							thire	11	3	2	0	16	*ire* for *eir*	11	3	2	0	16
weather	....	46	53	30	129	51	whether	....	3	9	5	17	*wh* for *w*	....	12	33	18	63
							wather	....	6	7	2	15	*e* for *ea*	....	12	13	8	33
							wheather	....	2	7	5	14	*h* omitted	....	14	11	7	32
							wether	....	6	3	3	12	1st *e* omitted	....	11	9	2	22
													r in 1st syllable	....	9	5	6	20

TABLE V

WORDS WITH NO TYPICALLY MISSPELLED FORM IN INTERMEDIATE GRADES

Word	No. of Misspellings III	IV	V	IV	Total	No. of Ways	Specific Errors	No. of Occurrences III	IV	V	VI	Total
beautiful	45	36	27	16	124	74	*i* omitted	20	20	10	3	53
							ea omitted	14	5	15	3	37
							a omitted	5	13	6	4	28
busy	....	35	34	35	104	66	*z* for *s*	....	13	16	6	35
							e for *u*	....	16	12	6	34
							i for *u*	....	9	4	7	20
							ss for *s*	....	3	4	13	20
excuse	....	55	55	25	135	95	*q* for *c*	....	10	16	4	30
							c omitted	....	4	12	5	21
							c for *s*	....	3	9	9	21
							es for *se*	....	8	3	6	17
							s for *c*	....	9	5	1	15
flowers	27	31	31	19	108	52	*s* omitted	14	6	5	4	29
							w omitted	5	7	2	1	15
							our for *ower*	1	5	4	2	12
							a for *o*	5	2	4	0	11
							e omitted	1	5	4	0	10
never	52	17	10	9	88	49	*a* for 1st *e*	13	5	3	1	22
							2nd *e* omitted	10	2	0	0	12
							r omitted	8	2	0	0	10
pretty	36	32	28	26	122	61	*t* for *tt*	7	12	21	14	54
							er for *re*	6	5	9	8	28
							i for *e*	0	5	8	7	20
							e omitted	8	2	2	0	12
soft	55	28	18	13	114	70	*e* added	8	6	5	3	22
							t omitted	9	6	2	3	20
							a for *o*	9	1	2	2	14

Keeping Abreast in Education

Thinking About Study Abroad?

► More than 25,000 scholarships for Americans who wish to study abroad and for foreign students who want to study in the U. S. are listed in the 1958 edition of the *Handbook on International Study*, recently published by the Institute of International Education.

The handbook is a "how-to" guide on international education with information ranging from where to study nuclear physics in Sweden to the exchange rate of the Indian rupee. It not only lists the 25,000 awards and grants of more than 250 different scholarship programs, but also lists the requirements of each, describes American and foreign education, and discusses government regulations affecting the international student. The scholarship programs listed range from grants for the mature specialist to awards for the teenager.

The 450-page book gives other information valuable to the student who wants to study in a foreign land. There is a list of colleges and universities in seventy-four countries around the world and in the U. S. Also given are the names and services of organizations willing to help the "exchangee" find living quarters or meet new people in the community where he is studying. There are tips on selecting a school in another country, an explanation of degree and credit requirements of both U. S. and foreign educational systems, foreign currency exchange rates, and an extensive bibliography in the field of international education. A special section covers summer study abroad.

The handbook may be obtained from the Institute, 1 East 67th Street, New York, for $3.00.

Attention, Native Americans!

► If you're the descendant of an American Indian —and can prove it—you may be eligible for scholarship funds at the University of Michigan. Five American Indian scholarships were established in 1932, covering semester fees.

Seems that back in 1817, Indians negotiating the treaty of Fort Meigs decided to give three sections of land to the newly formed Cathlepistemiad, or University of Michigania. The first gift received by the U. of M., the land was given by the Indians because "their children might want to go to college."

But their line is running out and only two of the five scholarships are filled this year. Great opportunity, you native Americans.

To Identify and to Motivate

► The North Central Association of Colleges and Secondary Schools has launched a program intended to identify and motivate more talented high school students to attend college, supported by a $174,000 grant from the Carnegie Corporation.

The first step will be a series of summer workshops for high school administrators and counselors. These will be held at the Northwestern University and the Universities of Colo., Mich., Minn., and Okla.

From fifty to seventy-four high schools in the nineteen states served by NCA will be selected for pilot programs, according to J. Fred Murphy, NCA Commission of Research and Service chairman who will direct the project. Preference will be given to schools willing to send a team made up of an administrator and counselor to the university workshops this summer, willing to allocate personnel needed to ensure an effective trial of the new program, and able to carry on the program for two years.

The lack of such action programs is the major bottleneck in helping superior students realize the maximum of their potential in ability and talent, according to Clyde Vroman, University of Michigan director of admission who heads the NCA's Committee on Articulation of High Schools and Colleges.

Yes, There Is Interest in Russian

► Only sixteen high schools of America are now teaching the Russian language, but interest is mounting rapidly. At the University High School in Bloomington, Indiana, for example, Assistant Principal Hugh Kelley surveyed his 400 high school students and found that ninety of them would like to study Russian next year.

Kelley had foresightedly employed a teacher last fall, Edward J. Haberle, who can handle the work, although Indiana's General Commission has not yet established standards for the course or for teachers. Haberle holds a master's degree in the Slavic languages from Indiana University, however, and used Russian while working in the foreign service in Washington.

According to an article in the March *School Life*, it is chiefly the scarcity of qualified teachers which holds back the teaching of high-school Russian. Interestingly enough, however, Russian is now taught in 173 U. S. universities and colleges, and only seven states do not have an institution where a teacher may prepare in this language.

Private Schools Continue to Grow

► During the last half century, the proportion of the nation's elementary and secondary pupils enrolled in church-related and private non-sectarian schools has increased steadily, according to a new U. S. Office of Education publication titled "The State and Nonpublic Schools."*

About one in eleven pupils was enrolled in such schools in the school year 1899-1900. By 1953-54, the base year for the Office of Education study, the ratio had risen to one in seven. If the trend continues, about one in six will be in non-public schools by 1965.

In eight states private school enrollment in 1953-54 exceeded 20 per cent. These were Rhode Island, New Hampshire, New York, Wisconsin, Massachusetts, New Jersey, Illinois, and Pennsylvania.

The range in private school enrollment was from nearly 30 per cent of the total in Rhode Island to 1.2 per cent in North Carolina. Other states where private enrollment was less than 5 per cent are Alabama, Arkansas, Florida, Georgia, Idaho, Mississippi, Oklahoma, South Carolina, Tennessee, Utah, Virginia, West Virginia, and Wyoming.

About 90 per cent of the private elementary and secondary school enrollment is in Roman Catholic schools.

On the college level the proportion of the total enrollment in private institutions has remained about the same for a quarter century—one out of every two resident students. In 1953-54, 89 per cent of the students attending college in Massachusetts were in private colleges, while there were no private colleges in Nevada and Wyoming.

The Office of Education publication discusses state laws pertaining to specific points, including incorporation, state approval of programs, compulsory education, public support, tax exemptions, and licensing. Interestingly enough, public funds dispensed under state regulation may go to non-public schools or pupils in several states for such purposes as operating the institution and providing buildings, instruction, professional services, scholarships and tuition allowances, textbooks, or health and welfare services.

Our Future Lies in Expansion

"We can be genuinely proud of what our schools and colleges have accomplished, proud of their present efficiency, variety, and scope, and particularly proud that the professional conscience of our educators has given them the humility to see faults and the desire to correct them. In our criticisms let us remember that such faults as our system may have result from the generous grandeur of an idea unique in the world. Our future does not lie in a retreat to lesser ideals. It lies in the enrichment and invigoration of what is already ours."

—BYRON S. HOLLINSHEAD, in "Is European Education Better?", April, 1958, *Educational Record*

Encouragement for Counselors

► An eight-year study of effects of guidance on students in representative Wisconsin schools has now been published by Harper and Bros. under the title, *Guidance Practices and Results*. Written by John Rothney, director of the University of Wisconsin's Guidance Laboratory for Superior Students, it follows the careers of 840 students in Edgerton, Stoughton, Fond du Lac, and Waukesha from 1948, when they were sophomores, until 1956. Half the students were guided by trained counselors during their high-school years, half were not.

Rothney shows that the counseled students entered and completed post-high-school training in greater numbers, more of them followed vocations chosen in high school, they were happier in their jobs, and made more rapid progress.

Double Sessions Preferable?

► One of the conclusions commonly reached by school districts who have studied the all-year school program as the solution to enrollment and financial problems is that double sessions are preferable and less expensive. This was the decision reached in San Mateo County and Los Angeles City School District of California a few years ago. A full discussion of the advantages and disadvantages of year-round school, written by Donald J. McCarty of the Department of Education, University of Chicago, appears in the February, 1958, *Administrator's Notebook*, published by the Midwest Administration Center of the University of Chicago.

Career Women Can Ignore Teaching

► Teaching is no longer one of the few occupations attractive to career women, says the December, 1957, *Journal of College Placement*, pointing out that job opportunities for women in business and industry are expanding tremendously. Over 450 different types of job opportunities now are available to them. The number of women engineers increased nine times between 1940 and 1956, to a total of nearly 6,500.

U. of Wisconsin Holds Research Confo

► In March, the University of Wisconsin School of Education sponsored the first statewide citizens' conference on educational research ever held in Wisconsin. It was attended by more than 200 educators and laymen.

* * *

In America, parents spent $1,500,000,000 for toys last year. Enough to build schools for 1,000,000 youngsters, complete with playground equipment.

* * *

"The average school age child spends more time viewing television than he spends at school."

—H. K. Newburn, president, Educational Television and Radio Center, Ann Arbor, Mich.

Closed Circuit TV in Med School

► In a darkened room, the attending physician talks soothingly to a small child. She is gulping a special chocolate-flavored drink that will show her swallowing action on the fluoroscope screen.

Two rooms away, a group of consulting physicians sit watching a television monitor. Elsewhere in a corridor alcove, a group of third-year medical students watch another monitor.

This is closed circuit television at the University of Wisconsin Medical School.

The doctor at the fluoroscope is diagnosing; the room of physicians may be in consultation or taking a post-graduate medical course; the third location may be a visual demonstration for medical education purposes.

A television camera and two 14-inch monitor sets, all portable units, were recently acquired by the UW Medical School. Trials in various phases of medicine are being conducted to determine the range of practical uses. Among the physiological functions observed are breathing, swallowing, heart contraction, gastro-intestinal function. The device can also demonstrate congenital heart lesions, ulcers or cancer, herniated discs, or tumor of the spinal cord.

Other medical schools have used television regularly, but chiefly in the area of surgery.

Teacher Ethics in Political Campaigns

► Has your school thought through all the ethical and professional questions relating to political campaigning on the part of teachers and teacher associations? The California Teachers Association Personnel Standards Commission recently made a study of the problem at Pasadena. Teachers and the Pasadena Education Association last year became involved in backing a slate of school board candidates. Before CTA stepped into the picture, the board had made its own hearings and complaints had been filed with the Los Angeles County grand jury. CTA found few instances of clear-cut ethics violations (pupils addressing campaign materials, staff solicitation of funds in school buildings, etc.), but there were plenty of "errors in judgment" and public relations headaches.

The board lacked written policy on political activities, but one has since been adopted. There were many instances of confusion about whether teacher meetings in buildings were staff meetings or those of PEA. The CTA report also found fault with the activities of the PEA executive secretary, stating that his personal involvement in the campaign tended to pull PEA into the act even though there was no official association sponsorship.

Don't Ask Us About the Down Payment

► Like to own an electronic computer? The big ones sell for $35,000 to $3,000,000. But you can rent them at charges running from $1,000 to $60,000 a month.

Traditional Education Experiment

► After reading about the rigorous study habits of Soviet students, students at the Winter Park, Fla., Glenridge Junior High proposed to Social Studies Teacher Hugh Ansley that they try it. Wearing paper badges with the letters TEE (Traditional Education Experiment), they snapped to attention when the teacher entered the room or called on them to recite, accepted the punishment of time-consuming chores, and undertook to cover in seven weeks the 485-page textbook that was supposed to last all year.

As reported in *Time* magazine, the experiment was an overwhelming success. The students decided that, minus the bowing and scraping and Soviet-style punishment, they would like to make the system permanent. They actually began asking why they should not have Saturday classes. They got them: the history of philosophy in the forenoon, logic in the afternoon. Teacher Ansley says, "We aren't shoving this down the students' throats. They have insisted on it."

Opportunity: Schools Are Page One News

► A few years ago content studies of U. S. newspapers showed much more space being devoted to school sports news than to any other phase of education. Today, according to a spotlight report in *Better Schools*, published by the National Citizens Council for Better Schools, the U. S. press has discovered that the schools are page one news. "And not just one-shot news when a bond issue is on the ballot or a school board election falls due, but regular day-in and day-out news, deserving of continuous coverage."

The school superintendent who does not seize this trend as an opportunity to tell the school story is failing in a primary duty, suggests *Better Schools*.

Special Education for One Quarter

► Of the nation's 20 million public school population, approximately five million—the academically gifted, the talented, the physically handicapped, the emotionally disturbed—are in need of special education programs, and only one quarter of those needs are being met, says the International Council for Exceptional Children, which met at Kansas City, Mo., in early April. Some 2,000 educators, psychologists, clinical therapists, guidance counselors, and social workers attended.

Merit Rating But Few Merit Increases

► Only 4.3 per cent of teachers in merit rating systems of Massachusetts have received merit increases, according to a study by the Massachusetts Teachers Association. Of 299 towns and cities replying to a questionnaire, nineteen had merit plans, involving 2,957 teachers. Of these teachers, 49 received supermaximums for merit and 77 others received larger than normal increments.

S R BONDS

Dear Editor:

I don't know when I have seen an issue of the PHI DELTA KAPPAN that is as valuable as the special issue, March, 1958. It is thoroughly in accord with the principles of Phi Delta Kappa, sound in concept, and beautifully done. I think it will rank as one of the most effective issues in the long history of the magazine. I look upon it as a tribute to the planning of the group and especially to your organizational ability. My sincere congratulations.—D. WILLARD ZAHN (Alpha Eta 25), *dean*, Teachers College, Temple University.

Dear Editor:

I want to take a moment to react to your March issue—this is the kind of an answer professional educators can justifiably and honorably make to their critics. The articles were extremely well-documented and authoritative. You may be certain they will supply my classes with discussion material for the rest of the semester. The entire edition was an effective refinement and synthesis of what many of us have been saying for a number of years. It would be worth getting this issue into the hands of as many laymen as possible. Local chapters should be encouraged to do this.—ROBERT O. HAHN (Alpha Epsilon 2596), *professor of education*, Los Angeles State College.

Dear Editor:

The March issue of PDKAPPAN was excellent! . . .

As to the next step, what is done with the information, let us take the words of Hilgard to remind us:

> Validate the principles developed in the laboratory in real life situations. A theoretical principle cannot simply be borrowed and used to guide practice. It must be first tried out under the conditions of actual life. In real life, learning occurs in a social setting, with constraints of time and personnel and equipment. An instructor teaching a course, because he does not have complete charge of his students, is not free to do everything he would like to do. Hence a laboratory learning principle has to be tried out in the classroom before we can be sure that it is useful.

. . . If we do move in these directions, the lacunae of empirical knowledge beneath the elaborate verbiage of our vast "under-developed territories" in education will be lessened. Although all the facts are never in, they do lead us to more fruitful questions.—STANLEY SOLES (Delta 2172), *instructor*, San Francisco State College.

Dear Editor:

Congratulations on the March issue of the KAPPAN. I believe it to be one of the finest issues published . . . and special congratulations to Dr. Cook for his compelling and very well written article.—LLOYD R. O'CONNOR (Lambda 1876), Belvedere-Tiburon, Calif.

Dear Editor:

Dean Cook's article, "The Gifted and the Retarded in Historical Perspective" (PHI DELTA KAPPAN, March, 1958), has irritated me to the extent of writing my first letter to the editor in about seventeen years of membership. Replete with platitudes with which no one can disagree, and couched in the shopworn "professional" jargon now happily gaining disrepute, the essay contains a few ideas which are as demonstrably fallacious as they are educationally vicious. One of them . . . , under the heading "Administrative Policies," recommends the integration of English and the social studies in a four-to-six-year coordinated sequence. Only the lack of space and time prevents me from pointing out a couple of other remarkable pieces of buncombe which the good dean has infiltrated into his article.

Experienced high-school and college teachers are, of course, not deceived by the elaborate bibliography and the generous quotations from "scientific" studies and "research" reports. The writer is as biased as his language is cold. He has an undeniable right to his views, but they are now recognized by most of the profession and parents and the educated part of the public *and students themselves* for what they are, the last gasps of a thoroughly discredited and dying philosophy.

Two things worry me sufficiently to take the time to write. One is that the PHI DELTA KAPPAN, being widely read among professors of education and school administrators, enjoys an influence out of proportion to its circulation. Among them anything that looks new superficially is likely to be mistaken for progress. The second thing, which disturbs me far more, is the question of whether the magazine will devote an issue to an opposing point of view. Will readers soon have the opportunity to read the thoughts of President Griswold of Yale, Dr. Eisenhower of Johns Hopkins, Professor Bestor, Sloan Wilson, and others? If not, the PHI DELTA KAPPAN must stand accused of partiality.—IRVING KATZ (Tau 550), South Philadelphia High School, Philadelphia 48, Pa.

(Editor's Note: You really should have told us more, Mr. Katz. As you can see, time and space mean nothing to us. By the bye, we are planning a series of symposia for Volume 40 of the KAPPAN *in which opposing points of view on controversial issues in education will be discussed by their leading exponents. Perhaps we'll check with those fellows you mention.)*

Professor Hamlet's Soliloquy

("To Be or Not To Be" translated into Educational Jargon)

To maintain this bio-chemical entity or
to terminate this unit of personnel,
that is the focal point of this on-going
problem-solving process.

Whether by some value system
one may arrive at the policy determination
that random socio-psychological stress
may be tolerated, or to initiate purposive
acting-out to re-structure the situation?

To terminate, to hibernate, there's the
pertinent decision-making emergent from
our fact-finding, for even in the passive state
what fantasy formation may eventuate?

Aye, there's the rub!

—*Michael Amrine*, Washington, D. C.

SPECIAL OFFER ON SPECIAL ISSUES

Reduced prices have been established in order to place special issues of the PHI DELTA KAPPAN in the hands of potential users. Single copies of each of the issues in the following list may be obtained for 30 cents by addressing the Business Manager, Phi Delta Kappa, Eighth and Union, Bloomington, Ind. In quantities of ten to nineteen (same issue), 20 cents per copy; twenty or more (same issue), 15 cents per copy.

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Trends in World Education	June, 1956
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Juvenile Delinquency and the School	March, 1940
The Library in the School	February, 1940